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ORIGINAL ARTICLES.

THE RÔLE OF BACTERIA IN PARTURITION.[1]

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About six years ago, in the Boston Gynecological Society, upon the subject of antiseptics in midwifery, I advocated that an instrumental labor should be conducted with all the antiseptic care and precaution of a major surgical operation. Then, I found myself without support; now, I do not expect all to accept such a proposition. If the subject was by any means settled, or such principles adopted, your attention would not be called to its discussion. Few topics in the entire realm of medicine hold to-day a deeper or more wide-spread interest, for which we are indebted in America, in no small degree, to the valuable paper by Dr. Thomas last year before the New York Academy of Medicine, and the reply of his equally distinguished opponent, Dr. Fordyce Barker, followed by a number of other contributors of scarcely less note holding various views. The pendulum of thought is never still. Upon certain phases of this subject it has appeared to have swung to the opposite, until now, in Harvard and other schools, it is taught that antiseptic injections should be used in all cases of normal labor as a routine practice.

Dr. Z. B. Adams, of Framingham, in a vigorous paper[2] read in Boston this past winter, takes strong ground against the routine use of the vaginal douche in normal labor. He claims that under such conditions the douche is not only useless, but harmful and injurious. Dr. Adams cited several cases in which serious results, death even had supervened. Five or six fatal cases were reported in the experience of the members present, where it appeared probable that the result was due to the use of the douche. The discussion was earnest and long-continued, with evidence of wide difference of opinion. It should not be difficult, abstractly, to state the problem which in this way at least is one of extreme simplicity. If we accept that the fact of parturition normally as a physiological process, that the uterus is a closed aseptic cavity before delivery, one danger to be apprehended lies in the introduction, after delivery has been effected, of a new abnormal or pathological element, into the recently emptied organ. This new factor, according to our recent knowledge and belief, is due to the development of a bacterial ferment. Many erroneous doctrines are still taught in regard to the processes of reproduction, especially of the placental development.

There can be little doubt that the catamenial decidua is the product which is elaborated by the uterine glands. This is equally true of the uterine decidua *(decidua vera)* of pregnancy. The numerous openings or holes which give the appearance of a sieve to the decidua, only indicate the points corresponding to the orifices of the utricular glands in the cavity of the uterus, which remain fully open to allow the constant passage of the product of secretion. In the early period of pregnancy this secretion is doubtless furnished for the nutrition of the fœtus; later this is elaborated by the complex glandular organ of new formation which we call placenta. The serotinal cells are elaborated from the sub-mucous layer of connective tissue, and, when separated, as a more or less perfectly formed placenta, there takes place an extensive traumatic lesion of the uterus on account of the laceration of the parts, which leaves bare the uterine tissue which had been covered by the placenta. The muscular contraction and rapid shrinkage of the organ reduce the size and cavity, and at the same time aid in hastening the proliferation and expulsion of the broken down and necrosed material.

Physiologically, this must be an aseptic process. If the pathological factor lies in the ferment or bacterial poisoning, how may this be introduced? Certainly from without. If excluded from the air or any foreign body the uterus, even to its cervical portion, may be likened in its injuries to a sub-cutaneous wound. When not undergoing change from fermentation the lochial secretion remains a non-irritant inocuous fluid, although swimming with broken down and even necrosed cellular debris. From this standpoint of view we must take exception to the position assumed by Dr. Thomas, above referred to, as well as many others, both in Europe and America.

Dr. Thomas states "that the lochia is in every case the offensive fluid, that it is made up of dead and decaying animal tissue." True, it contains dead, cast-off tissue, and is always a highly albuminous fluid, just the material for the feeding, in their rapid growth, of micro-organisms, when accidentally introduced into this then most efficient incubating chamber. Normally, they certainly are not present; and when absent decay or ferment cannot occur.

[1] Read in the Section on Obstetrics and Gynecology at the Thirty-Sixth Annual Meeting of the American Medical Association.

[2] Boston Medical and Surgical Journal, Feb 19, 1885.

Whence come the micro-organisms, the ferment necessary as seed? Is it auto-genetic, normally found in the parturient canal? If so, why does not every woman suffer in confinement from septicæmia?

Is it likely that of all organic functions, that upon which the continuance of the species depends and which is common to all animal life should, as Dr. Adams pertinently remarks, be the one which acts only under conditions tending to decay and death; that is to say, under conditions of disease? Micro-organisms are usually found in the vagina in health. Would this give us the seed for the sowing of the direful harvest? Evidently such belief pertains to most who have advocated, as preventive, vaginal injections both before and after the completion of labor. This appears to be the weak point in Dr. Thomas's position, and the almost only effective argument used by Dr. Barker against him in reply.

The history of the ages shows that the mortality of normal labor of the entire animal kingdom is very small. No one emphasizes the fact more clearly than Dr. Thomas that in all primal labors, at least, there are as a rule solutions of continuity usually both cervical, vaginal and perineal. In the normal labor the outflow for a few days is constant in current, the drainage of the vaginal canal is usually excellent, and yet this albuminous material, as found upon the napkin or external parts, is generally of a decided odor, and, when carefully examined microscopically, is found swimming with bacteria-termo, these most useful of nature's scavengers, the omnipresent agents for taking to pieces and refitting for other uses albuminoid compounds. In this form of micro-organism we surely rarely have danger, and when we consider the normal conditions present we readily see why we do not find these growths in the uterine cavity. Although I am as earnest an advocate for cleanliness as any other, this fact will explain why, amid filthy surroundings, the unwashed, unchanged, uncared-for woman so very generally makes a good convalescence. In a theoretical way it is possible for us to consider that the bacteria-termo of decomposition serve a useful end, by utilizing and exhausting the material otherwise efficient to feed an army of most dangerous enemies.

Dr. Thomas advises a careful disinfection, closing and sealing of all perineal and vaginal rents. Most excellent advice, and surgically very important, which we hope to see generally adopted; but, when we remember that he advocates this with the distinct object of lessening the danger, or obviating the cause of puerperal fever, we can but think he becomes unintentionally misleading, and in so far fails of his purpose, for we cannot believe that Dr. Thomas would teach that septic absorption from the injuries of the ostium vaginæ is the cause of puerperal fever. At the most, these are open wounds of tissues of comparatively little importance, and would certainly endanger the patient in a degree no greater than after operations for perineal restoration, and we do not suppose our distinguished friend would consider a general dangerous septic poisoning at all likely to supervene upon perineal repair.

The above argument would not hold good in laceration of the cervix, since this is the part of an organ which has undergone a most marked physiological change. The vascularization of the uterus and pelvis at term is extraordinary; the lymphatic system has become equally developed until the physiological state is one nearly akin to certain well-recognized pathological conditions. However, it is not shown that puerperal fever is especially liable in primal labors, and yet it is generally accepted by all that cervical lacerations are far more frequent, in a certain degree rarely absent, in first confinements.

It would seem that even here something more is wanting than the initial lesions under ordinary conditions to induce the dreaded dangers incident to so-called puerperal fever. Careful cleanliness before and at labor should be enjoined, a strong antiseptic vaginal douche before delivery may be wisely advised. The circumfusa of the patient is by Dr. Thomas taken into account. A specially prepared room, with every surgical precaution, an aseptic atmosphere is emphasized and enjoined, even to wiping the furniture with carbolic or bichloric solutions. This is certainly safe, and of no very great consideration so far as expense or trouble is concerned. It is a consideration, however, unless really demanded, if we may not cause thereby serious foreboding and unnecessary nervous trepidation on the part of the patient. This would certainly not be required if the delivery was normal, and normal labor is accepted as an aseptic condition equivalent to a subcutaneous surgical operation.

Let us suppose the labor no longer remains normal, but that manipulative interference becomes necessary. Here the entire phase of the question is changed; and under these conditions I would emphasize the use of the most thorough antiseptic surgical precautions. Our proceedings are now subject, in large measure, to atmospheric exposure, and here we need an aseptic atmosphere. In home, as well as hospital, let its purification be enforced. I have for years in instrumental labors believed in and used the spray. It certainly can do no harm, it may be of the greatest value. Infinitely more important, however, is the aseptic state of the operator. If the physician has been attendant upon infectious diseases, he should take a bath, change his entire clothing, pay particular attention to his hair and beard, and scrub his hands and especially under the nails with 1–20 carbolic solution, or 1–1000 mercury bichloride. The same care must be used with instruments. In all cases where the placenta has been detached manually, let the uterine cavity be antiseptically treated, ergot given and the uterus kept in control until firmly contracted. Then iodoform may be wisely introduced into the vagina, and a compress applied externally, moistened by a reliable antiseptic solution.

Why are these precautions dogmatically asserted as arbitrary rules? Without especial review, simply because they are based upon the same general principles which govern in surgery. Then are puerperal poisonings and surgical poisonings essentially the same? Of this there can be little doubt. As I have insisted above, the bacteria of decomposition have nothing in probability of casual relation thereto. It

is the round cell growth, the micrococcus, which is active here as in the septicæmia of wounds. The bacteria of decomposition do not readily reproduce in the blood of animals, and when injected therein rarely do more than serve as a more or less active chemical irritant. This is not true of the micrococcus. Under favorable conditions, which are so very general in the pregnant state, they effect lodgment, colonize with a rapidity entirely inconceivable. Such seed introduced into such a favorable soil must yield an abundant harvest.

The planting ground, however, is rarely the vagina, but is found in the uterine cavity. It is hard to conceive of an incubating chamber presenting more favorable conditions. The albuminous fluid furnishing abundant food, the heat point steadily maintained, open sinuses, lacerated vessels, denuded walls through which ramify an abundant network of lymphatic vessels, all furnish conditions for generation and absorption rarely equalled. Carried along with the lamphatic stream, they are distributed to neighboring and often distant organs. They not seldom form thrombi in the veins,and as such are carried into the circulation.

The micrococcal development is all the more dangerous, since it is accompanied by no marked odor, and I fear many have been and are accustomed to determine conditions by such imperfect and unsatisfactory methods. When once infected have we means within our power for remedying the evil? Here again the conditions are much the same as in surgical septicæmia. Washing out the uterus does not prevent the mischief already done to the neighboring tissues. Dr. Lusk most tersely and forcibly puts it as follows: "The douche, however, is not infallible. In cases where there has been inoculation of the round bacteria, they often invade the tissues beyond the original lesion, and it is of small avail to wash out the uterus when the victorious army has advanced far away from the point of attack. Washing the arm daily after vaccination does not prevent the development of vaccinia. Washing out the uterus after the pelvic tissues are infiltrated with septic microspores may cut off the reënforcements, but does not prevent the progress of puerpereal septicæmia. I would advise, therefore, not to continue the uterine douche in cases where the results of the first thorough injection furnish the evidence of its importance."

In my own experience I have treated the uterine cavity as I would an infected, suppurating, sloughy wound. I do not hesitate carefully to remove with blunt curette any irregular placental masses from the uterine cavity, and in a number of instances have applied thoroughly the liquified crystals of carbolic acid. This, I believe, may be safely used, since the acid coagulates the albuminoids and is thereby not readily absorbed, while it acts as a local stimulant to the surrounding tissues and makes them less absorbent. I have also often introduced a considerable quantity, fifteen to thirty grains of iodoform, within the uterine cavity and allowed it to remain.

The relation of erysipelas to puerperal fever has long been suspected, and was first advocated as cause in Boston. An unfortunate series of cases occurring in the practice of a brother physician, within the year, is worthy of notice. Following a case of erysipelas early in January, there supervened in his practice five fatal cases of puerperal fever, the last developed at about the tenth day, erysipelas following what seemed a slight abrasion in the middle line over the cocyx up the back, and then diffusing laterally, until it became general, and before death had extended over quite the larger portion of the body. I inoculated sterilized bulbs at the bed-side with fluid taken with much care directly from within the cervical cavity. Micrococci in a pure culture were reproduced in rapid growths, and in appearance they could not be differentiated from the micrococci in the cultures from the blisters of erysipelas.

Too much importance has undoubtedly been placed upon the use of injections. We think Dr. Adams and others have shown that they are in normal labor at least of doubtful benefit, and are not seldom dangerous. The douches doubtless often carry the very infection for the destruction of which they are employed. Who of us have not seen the use of dirty unboiled water with serene composure, because, forsooth, a little of some doubtful antiseptic had been added thereto? Danger lies even in the hand of experts of world-wide fame. Under date of November 14, 1884, Dr. H. G. Bigelow writes me from Berlin that Schröder has lost three cases from intra-uterine injection; in the last case 1-1000 mercury bichloride was used. Dr. Adams pertinently remarks that one set of authorities advocate the use of one kind of syringe, and another, laying blame to the instrument instead of the method.

We have already attempted to show that in normal labor it is not required, while it is too plainly apparent that after the disease has developed and micrococcal poisoning has supervened the intra-uterine douche too often fails to secure the desired result. Earlier I believed differently, and gave much thought to the perfecting of a double soft rubber injection tube for this very purpose. Experience in Europe as well as in America, clearly teaches the great importance of the subject, and the salvation of lives in large numbers has undoubtedly followed the more or less general wise precautionary measures adopted.

Under date of March 25th, 1885, Dr. E. W. Cushing writes me from Berlin, "The acceptance of the germ theory is universal, and its application is most incredible in thoroughness. The habit of washing out the vagina after child-birth, in cases which give no evidence of infection, has been entirely given up in the well regulated German hospitals as unnecessary where proper care and cleanliness prevails, the washing both inside and outside being done with the utmost thoroughness *before*, not after parturition."

A better general understanding of the subject will aid in carrying on the good work "I will show you my faith by my works," saith the apostle of old. One must understand the great underlying principles of antiseptic surgery, and accept them *in belief* in order to carry them wisely into effect. Let the facts be adduced and the reasons clearly shown for the innovations demanded, else they will be relegated to the systems and fashions of the fallacies in the medical art.

DETERMINING ERRORS OF REFRACTION BY DOUBLE IMAGES AND BY PARALLAX.[1]

BY T. E. MURRELL, M.D.,

OF LITTLE ROCK, ARK.

By Double Images.—In studying the laws of refraction as applied to the eye, it occurred to me that two opposite peripheral beams of light in the pupil could be made available in determining the posterior focal point of the eye relatively to the bacillary layer of the retina. This can be easily accomplished by using a disc or card with two small perforations in it, large enough to give distinctness of vision, and close enough together for both to fall within the area of the pupil. In order to prevent lapping on the retina, it is necessary to use a point of light for observation, which should be about twenty feet distant from the observer. A pin hole in a card over a candle, lamp or gas flame, or over a window against the sky; or, better still, as the room does not have to be darkened, a small silver globe hung opposite to a single window opened towards the sky, gives the necessary point of light. In the toy stores are kept glass globes about two and a half inches in diameter, hollow, and brightly silvered inside, which give a very bright small surface when hung opposite to a window, distinctly visible from all parts of the room, that answer the purpose admirably. In emmetropia, with the accommodation in a state of rest, all the light that enters the eye through the pupil from a distant point is focused in a single point in the retina.

It does not matter through what part of the pupil any isolated ray may pass, it is converged to one and the same point in the retina as any and all other rays from the same source. Hence, if two slender beams from opposite margins of the pupil are caught and others excluded, they will meet in one point in the retina and give a single image. In emmetropia, therefore, in viewing a distant point of light through the double aperture, it appears single. In myopia, the two pencils cross in front of the retina and meet the bacillary layer at separate points; hence the point of light is seen as two points. In hyperopia, the two pencils of light reach the retina before meeting, and likewise give two distinct visual impressions of the distant point of light. The appearance is the same, whether for excessive or defective refraction, but they may be readily distinguished by slipping the edge of a card over one of the apertures, when, if myopia exist, the point of light corresponding to the aperture covered will disappear, but in hyperopia the opposite point will disappear; or, by holding a spherical lens before the eye, when the two points will approximate if it is a correcting lens, and separate more widely if not. The lens that blends the two points into one is the correcting glass for distant vision.

A space of one millimetre between the apertures in the disc causes a separation of the points of light at a distance of twenty feet, about sixteen millimetres for each dioptrie of abnormal refraction. By ascertaining, then, from the person under trial the apparent distance between the points of light, the degree of error can be approximated.

In astigmatism it is only necessary to revolve the disc before the eye so as to cross the different meridians of the cornea in order to ascertain which meridian, or meridians, is in fault. Spherical lenses can be used for finding the correcting number. When found, the cylinder, or sphero-cylinder, should be put in the trial frame and the disc revolved, to see if there is a single point of light in all meridians; if so, correction is perfect. For convenience, I use a circular disc of blackened brass, which fits into the trial frame, so that it can be easily revolved, and the faulty meridians readily found. The most convenient size for the apertures is about one millimetre, and the distance between them one millimetre. In some cases, apertures of half a millimetre in diameter work best, especially in excessive ametropia, and in very small pupils.

I have worked out a number of cases of myopia, hyperopia and astigmatism by this method with, in most cases, the greatest ease, and chosen the correct glass from the trial case without other aid. The two apertures should always fall within the pupil, else it will lead to error. When both apertures are seen through, two circles appear to lap before the eye, and vision should be through the lapped portion.

Some persons are so awkward and unintelligent as to confuse the examiner, but they would prove equally troublesome by any other subjective method. Some preliminary instruction, therefore, becomes necessary, as in the use of other means. By this device an error of half a dioptric is easily detected.

Some time after I had been using the double aperture disc for solving ametropia, I, for the first time, came upon an account of Scheiner's experiment to demonstrate accommodation. The device he made use of was identical with the one here presented, but he only used it as an experiment to prove the accommodation of the eye; as it may still be practically applied in determining the punctum proximatum.

By Parallax.—If a single small aperture in a card be moved somewhat rapidly back and forth in a straight line across the pupil, at the same time that fixation is on some object twenty feet or more away, the object will appear motionless if the eye is emmetropic, but will seem to move if myopia or hyperopia should exist. In myopia, the object will appear to move in a direction with the card; while in hyperopia, the reverse is the case. In astigmatism, it is only necessary to move the card in a line corresponding with the faulty meridian, to determine the existence and kind of refractive error. The explanation of this parallax will be readily understood when the laws of projection are applied. Projection, as is well known, is from the retinal image through the nodal point of the eye. Since, therefore, all the light from any distant point that passes through the pupil in an emmetropic eye with accommodation in abeyance, is conveyed to a single point in the retina, it follows that all projection for every ray that enters the eye from that point will be in one line; hence the object will appear motionless, however much the different entering rays may be changed by moving

[1]Read in Section of Ophthalmology and Otology, at the Thirty-Sixth Annual Meeting of the American Medical Association.

the aperture. In myopia, the focal point of the eye lies in front of the retina, and the pencils which enter the pupillary area cross here and separate before reaching the retina; so that when the small aperture is moved across the pupil, the retinal image will move in the opposite direction, projection being, for this reason, in the same direction.

In hyperopia, all the rays that pass through the pupil form a cone truncated at the retina, and each retinal point within this area will correspond with a like position in the pupil. Hence, when the aperture admitting a small beam of light is moved across the pupil, the retinal image will move with it; but as the image travels in one direction the movement of projection will be in the opposite direction. Therefore, in hyperopia the object will appear to move in a direction opposite to that of the card.

The amount of displacement of the object fixed upon twenty feet away is for each dioptrie of ametropia about sixteen millimetres per millimetre pupillary diameter. So that, with the average-sized pupil, the displacement becomes quite conspicuous, even in small errors. This, therefore, is a very delicate test, being sensitive to an error of one-fourth of one dioptrie or less.

Of course the same rules apply with reference to the necessity of paralyzing the accommodation as by any other other method. The larger the pupil, the more sensitive the test. If, in astigmatism, the card is moved in a meridian obliquely to the faulty meridian in the eye, the object will appear to move in the dian, or obliquely to the direction of the card. In irregular astigmatism, the object will simply appear unsteady, or to jump in different directions.

In using this test *by parallax*, the card or disc may be moved to and fro across the pupil by the party examined; but awkwardness on the part of many persons renders it important to use in astigmatism some mechanical device by which the movements of the aperture can be made uniform and in a line with any desired meridian. I have had constructed a circular brass disc, blackened, to fit into the trial frames, having a movable centre-piece regulated by stops, and in which is the aperture to look through, which can be easily revolved or oscillated by a touch of the finger. The aperture should not exceed one millimetre in diameter.

Either of these methods will often prove a great aid to other methods in determining not only the refraction of the eye, but in proving the correctness of the glass. If, with the correcting lens before the eye, there are two points of light in any meridian by the one method, or a parallactic movement of any distant object by the other, the glass is not correct.

The method by parallax is especially serviceable in high degrees of amblyopia, where the exact refraction can often be determined when vision is so low as to render the largest letters of the test type indefinable. It is also useful in establishing the existence of amblyopia in those cases where the examiner is sometimes puzzled to know how much of the defect still not overcome is due to error in the glass, or how much to deficient perceptive power. To determine at once the existence of any error of refraction the method by parallax is the simplest, surest and quickest of all methods, since a pin-hole in a card and any distant object to fix on constitute all the appliances necessary for the examination. I hope I am not to be understood as supplementing by these simple devices the use of the ophthalmoscope, test type or diagrams in the solution of ametropia. Far from it. I merely claim for them a usefulness that entitles them to a place in the specialist's trial case. At least they possess the merit of simplicity, inexpensiveness, and strict conformity with scientific principles.

A CASE OF HEREDITARY GLAUCOMA.[1]

BY HERBERT HARLAN, M.D.,

OF BALTIMORE, MD.

That glaucoma is often hereditary, and that when hereditary, it tends to appear at an earlier age than common, was recognized by von Graefe as long ago as 1869,[2] but that the disease should appear in five successive generations before the age of 20, is, I think, worthy of record, and is my excuse for presenting to you the history of the otherwise sufficiently common case which follows.

Case.—C. E. B. came to me from one of the towns on the eastern shore of Maryland, March 24. The patient was a timid, nervous, not very intelligent, but well developed girl of 17 years. Her sight had been failing a little more than a month, and more rapidly the previous week. For several nights had seen circles of colored light around the lamp. The nearest approach to pain had been a sense of discomfort. The eyeballs were prominent, the pupils slightly dilated, V. O. D. $\frac{20}{100}$, V. O. S., $\frac{20}{100}$—. Jaeger No. 1 with each eye for a moment, but with marked discomfort. T. 1 +. The ophthalmoscope revealed a whitish and deeply excavated optic nerve, vessels numerous, and veins dilated and tortuous; but there was no pulsation except on slight additional pressure. Diagnosis, chronic glaucoma.

Inquiry brought out the following family history: Her mother, who accompanied her, is 49 years old, and absolutely blind. Both anterior chambers are obliterated, and the pupils closed. She states that at 19 her eyesight began gradually to waste away. She saw halos around the lamp. A year later had inflammation in the eyes which the doctors called cold, and treated with drops and blisters. After a while, the eyes got better. Then another attack of inflammation came on, and she has been blind ever since. Never at any time was there much pain. The mother's father lost his sight in the same way, beginning at the age of 18. This is also the history of the maternal great-grandmother and great-great-grandfather. I was unable to trace the family history further back, but from that given, there can be little doubt that chronic glaucoma has been transmitted in direct line for at least five generations, the age of onset being about the same. A maternal uncle at 35 years had pain in his eyes and head, and in three years his sight was entirely gone. A maternal aunt who saw per-

[1] Read in the Section of Ophthalmology and Otology, at the Thirty-Sixth Annual Meeting of the American Medical Association.

[2] A. f. O. XV, 3, page 228.

fectly till she was 18 years old, and never complained of pain, was suddenly found by the family to be blind. She died three years later. Two uncles and an aunt, all over 55 years of age, see well. One cousin, now at a blind asylum, began to lose her sight at 16. Sight in her left eye was gone before it was found out. The other slowly followed. Never complained of pain. Another cousin was operated on four years ago by an oculist of Baltimore. One eye was removed altogether, and on the other an iridectomy was done, and with this she now sees.

For the case now under consideration I advised an iridectomy, and the following day, under the influence of muriate of cocaine, I performed the operation on both eyes, excising a large piece from the upper segment of the iris in each. I used a lance-shaped knife, and although the patient was restless and fixation of the eyeball was exceedingly difficult, the operation was perfectly smooth. Atropia was instilled, the eyes bandaged, and the patient put to bed. Two days later, on examination with a candle, I found the right eye clear, but in the left the lens was hazy.

To be brief, at the end of ten days, as a result of the operation in the right eye, all sense of discomfort was gone, V. = $\frac{20}{10}$, comfortable Jaeger No. 1, and the ophthalmoscope showed all the congestion of the fundus to have disappeared. In the left I had a traumatic cataract, doubtless due to the operation, but just when or how caused I do not know. The patient then had an attack of mumps, and was discharged from the hospital, and on April 13 was readmitted and operated on for the removal of the opaque and murky lens. From this last operation she made a good recovery, and six days after, on the day of leaving home to attend this meeting, the pupil was clear, there was no discomfort, and she readily counted fingers with the left eye.

SUGGESTIONS ON SOME SYMPTOMS OF RENAL DISEASE, AND THEIR MANAGEMENT.

BY CHARLES W. PURDY, M.D.,

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I desire first to draw attention to the mode of action, and range of utility, of certain diuretic agents in the treatment of renal diseases. This seems the more appropriate at this time, inasmuch as the widest difference of opinion exists among authors, as to the propriety of the general use of diuretics, in the treatment of nephritis, both in its acute and chronic forms. Some are accustomed to rely largely on the use of these agents, in the treatment of those diseases accompanied by albuminuria, while others, more notably Senator, of late condemn their use as altogether injurious. It cannot of course be denied but that the indiscriminate use of diuretics is capable of doing harm in some cases, but this is equally true of most other medicines; and it only teaches us that they should be given with a definite purpose in view, and withheld in those cases where experience has taught that they are useless, or harmful.

That diuretics not only do not always prove injurious, but in many cases prove highly beneficial in the treatment of albuminuria, has been testified to so frequently by those whose experience peculiarly fits them to judge intelligently, on this question, that it seems impossible to doubt the proposition that they have a definite range of utility. It is my present purpose to point out some of the more obvious indications for the use of these agents in treating albuminuria; and to call attention to the special agent appropriate to each case, on pathological, physiological, and chemical grounds.

First then, if the actual quantity of urine falls seriously below normal, we know from ample experience that the patient is subjected to very grave dangers; and, that these dangers will be directly increased in proportion to the actual diminution in the quantity of urine secreted. It is obvious that diuretics are imperatively demanded in such cases for at best we can only substitute the action of the kidneys, by that of the skin or bowels, for a short time, and that in a very imperfect manner. It therefore becomes our duty to increase the secretion of urine in such cases by such agents as are most efficient, and at the same time the least embarrassing or injurious to the kidneys themselves. In order to be able to accomplish this intelligently, we must study the cause of the diminution or suppression in each case.

There are chiefly three pathological causes of diminution, or suppression of the urine met with in the course of renal disease. First,—congestive inflammation of the glands, resulting in (a): blocking up of the secreting tubules with colloid matter, counteracting the blood pressure which causes filtration of the urine, and preventing the escape of the latter; (b): inflammatory changes in and around the glomerule, which interfere with the renal function, and prevent the secretion of the aqueous urine. Such are the causes of anuria in all forms of acute Bright's disease, whether arising from cold, scarlatina, or pregnancy, and which lead up to dropsy, and all those secondary complications arising from retained urinary derivatives in the blood.

Secondly, we have lowering of arterial pressure, which lessens the tension in the glomerule to a point where filtration of urine becomes diminished, or more rarely, altogether arrested. Such conditions we find sometimes present in late stages of granular kidney, where the heart affection has outrun the renal, passing rapidly through the stages of hypertrophy, and dilatation, into fatty change (the legitimate result of hypertrophy if it lasts long enough). In the stage of collapse in cholera, we have the same lowered pressure, and suppression; while in mitral disease of the heart the same thing also occurs to a less extent, resulting in diminution, short of suppression of the urine.

Thirdly, the secretory structure of the kidney may become so largely destroyed through disease, that sufficient of the gland does not remain intact to carry on the function of the organ as a whole; and the urine falls periodically, or constantly below normal. This condition is met with in the last stages of atrophy of the organs from cirrhosis, or interstitial nephritis

so-called. New growths, and extensive emboli, may produce similar results.

Now, in the first case, where the secreting tubules of the organs are completely blocked up with colloid exudations, the obvious indications are to clear these away, before we can hope to reëstablish the urinary secretion. How are we to accomplish this object? We know that albuminous substances are soluble in alkaline solutions; and we know that we are able to render the urine alkaline by the administration of certain neutral salts, as the acetate and citrate of potash. The indications are perfectly clear then, that these neutral salines are the agents *par excellence* to direct against the conditions named, *to wit*, acute nephritis. Once the urine is rendered alkaline the tube casts are dissolved, either completely, or to the extent that they are able to pass the narrow constructions at Henle's loops, and thus become washed out with the urine. I am not aware that any one has yet suggested, that the action of these neutral salts is largely a chemical one; and, through rendering the urine alkaline, effects a solution of the colloid plugs which block up the renal tubes. That such however is no mere theory, I have satisfied myself by observing the behavior of tube casts in urine rendered alkaline outside the body, where they are dissolved after a few hours' standing. Further testimony in the same direction is afforded by the fact, that tube casts are rarely found in alkaline urine, no matter what pathological condition of the kidneys exist at the time it be passed.

Experience has strongly confirmed the superior efficiency of these agents as diuretics in acute Bright's disease. Nearly all authors give them the preference in such cases. Thus Dr. Roberts, in his last edition writes: "in a considerable number of cases of acute Bright's disease, coming under my treatment early, I have obtained almost invariably the best results by the administration of citrate of potash. And *in no instance where the urine has been rendered alkaline*, in the first week of the complaint, have I observed the more severe uræmic symptoms, or secondary inflammations." The saline diuretics are probably the least of all stimulating to the renal epithelium, and consequently least irritating to the kidneys, which still further fits them for use in acute cases. In cases then of acute nephritis, attended by diminution or suppression of urine, the best results may confidently be expected from the administration of the citrate or acetate of potash, in sufficient doses to maintain the urine alkaline. I am aware of but one exception to this rule, namely, in the case of scarlatinal nephritis. In the latter case, in addition to the blocking up of the tubules, there is more inflammatory swelling of the Malpighian glomerule than in any other form of acute nephritis. The products of inflammation infiltrate the glomerule, producing a homogeneous swelled mass. Leeching the lumbar region, followed by fomentations and cathartics, are therefore demanded in these cases in addition to the saline diuretics, more urgently than in other forms of acute nephritis.

In the second class of cases, where the urine is diminished owing to lowering of arterial pressure, the indications are more obvious. Under such circumstances we may expect the best results to follow the use of heart tonics, as digitalis, convallaria majalis, adonis vernalis and strophanthin. In other words, we get the best results by treating the heart disease, upon which the renal complication depends.

In the third class of cases, where the urine is diminished as the result of destruction of large areas of the kidney structure, the remaining sound portions of the gland must be made to do the work of the entire organ. Certain fortunate circumstances favor us in such cases. First, the capability, unlike the heart and most other vital organs, of the kidneys of work far beyond the requirements of the system, so that a comparatively small portion of the organs may perform the function of the whole, if only the remaining portion be sound. Happily in these cases under consideration, the portion of the glands unencroached upon is usually normal, or nearly so. In these cases we must employ our most active diuretic measures, in order to stimulate the remaining portion of the kidneys, up to a point where a normal quantity of urine may be secreted; or rather as much as will permit the functions of life to proceed without interference if possible from a renal source. Digitalis, convallaria, and heart tonics are indicated as before, but in this case, to maintain the blood pressure *above* normal. With these measures are to be combined such agents as juniper, scoparium, and squill. Indeed such cases as these unfortunately leave us little room for choice of agents to be used: the urgency of the case demands all the resources we are capable of bringing to bear against renal inactivity.

With regard to the use of diuretics in the treatment of albuminuria, where the quantity of urine is normal, I am inclined to think with Senator, that their action is harmful, or at least unnecessary, and that they are best avoided.

The next point I desire to mention, is the value of high vascular pressure, as a diagnostic symptom of renal diseases. I say renal diseases purposely, as I quite recently came to know that it accompanies diabetes mellitus, as well as chronic Bright's disease, and hence, we have an additional reason for examining the urine, when the sphygmograph indicates high vascular pressure, as we are liable to find sugar in the urine in such cases, as we are albumin.

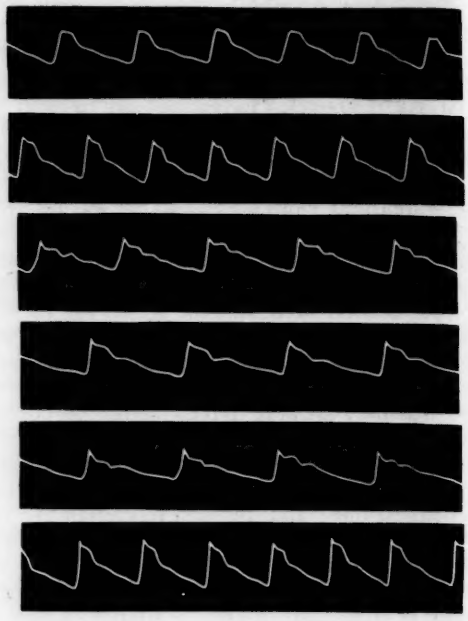
To the late Dr. Mahomed, of Guy's Hospital, we are indebted for first pointing out the constant coincidence of high arterial pressure, with chronic Bright's disease; and moreover, that it is an extremely early symptom of that disease, being very frequently present long before albumin makes its appearance in the urine. This symptom, as Dr Mahomed showed, is not only valuable as a diagnostic, but also as a prognostic sign; as it points very strongly to chronicity of the disease. I have been in the habit of relying much on this sign of late, in making up my diagnosis of chronic Bright's disease in its early stages; but, as I have dwelt upon its characters, and value in these cases at considerable length in a recent publication,[1] I need not here repeat them.

With regard to high arterial pressure connected

[1] Chicago Medical Journal, May, 1885.

with diabetes mellitus, several very important questions at once arise, which the future may prove of practical value, as well as of considerable interest, both in an etiological and therapeutical point of view. Thus the constant hyperæmia of the liver pointed out by Dr. Pavy as accompanying diabetes, may bear a very important relation to the tension of the arterial system, which I have just spoken of as accompanying the same disease. The obstinate nature of coughs, and the insidious manner of approach of bronchial and pneumonic inflammation in diabetes, would seem clearer in its causal relations, if we take into consideration acccompanying high arterial pressure; and this suggestion appears in stronger light still by analogy, when we reflect on the similar tendency in chronic Bright's disease. The frequent appearance of albumin in the urine of diabetic patients, without marked lesions, is more readily explainable on the ground of exalted vascular pressure, as we have the same slight albuminuria in interstitial nephritis, as many think, from the increased blood pressure alone; since the renal lesions are so slight, or even apparently absent in the early stages.

But the most practical and valuable results which may possibly be the outgrowth of high vascular pressure, if it shall prove, as I believe, that it constantly accompanies the diabetic condition, would be in the direction it may shape the therapeutics of the disease. Thus if high arterial pressure is closely associated with the cause of the disease, we may expect to derive benefit by a cathartic course of medicines, which lower the blood pressure. With regard to the cause of high arterial pressure of diabetes mellitus, my own investigations thus far only enable me to say that it is not due to the presence of sugar in the blood, as one would perhaps naturally suppose, for in three of my cases which were put upon successful treatment, causing a complete disappearance of sugar from the urine, in pathological quantities, the exalted vascular pressure continued uninfluenced. These facts would tend to show, that the cause lies deeper than the mere presence of sugar in the circulation; possibly it may underly certain conditions of the system from which spring in some cases diabetes mellitus, and in others, chronic Bright's disease; such as imperfect tissues metabolism. We have already referred to very similar phenomena which are quite common to both diseases, as chronic cough, slight albuminuria, and many others might be named, such as diarrhœal tendencies, the large amount of uric acid in the urine, the tendency to death by coma, etc., while moreover, both diseases are most prone to arise during the same periods of life, being most common between 30 and 60 years. I append below examples of pulse tracings from diabetic patients of mine, in which it will be observed, that the characters are exactly similar to those accompanying chronic Bright's disease' namely, those of high arterial pressure; and I may add, in the of course limited number of cases coming under my observation I have never found these absent in diabetes mellitus.



Lastly, I desire to refer to the question of uræmia, as this has always carried with it the deepest interest in the consideration of renal disease. In no field of scientific research, has persistent and indefatigable investigation been less rewarded by satisfactory results. It has defied successfully the fixation of its cause upon every single element of the urine, normal, and abnormal thus far, till practically we are not much wiser as to its etiology, than were the first observers, who noted the appearance of its remarkable phenomena, as a constant result of suppression of the urinary secretion. It is true, we possess more knowledge of the various phases of its manifestations on the organism, and, moreover, we know something more as to its successful management, and anything that can add to the latter, is always of practical interest. For some time past (since the observations of Rommelaere, of Brussels) an impression has prevailed that the responsibility for the cause of uræmic manifestations, does not reside in any single element of the urinary excretion, but rather in several of these, if not indeed the whole compound. Quite recently Professor Bouchard, in a communication to the Société de Biologie, has pointed out that normal urine is very toxic, when injected into the veins, even in very small quantities (this has been denied by previous observers), and from a series of experiments he concludes that several poisonous alkaloids reside in several of the urinary constituents. These however have not yet been isolated, and consequently their antidotes have not been ascertained; so that we are not much nearer practical results in the management of the grave complications from this source.

That the cause of uræmia is a toxic one, is generally admitted; and all the facts go to confirm this assumption. That the toxic agent, or agents, either reside in the urinary constituents, or their derivatives, is evident from the fact that when the urinary secretion is retained in the system a sufficient length of

time, the uræmic phenomena follow, and moreover, the latter subside on the reëstablishment of the urine if it continues. Now so far as the nervous system is concerned, this toxic influence seems to direct itself sometimes most intensely against the medulla and motor centres, and if sufficiently concentrated, tonic convulsions are the result. In other cases the sensory tract of the brain suffers the most profoundly from the toxic influence, and death may result from coma, pure and simple.

With our present knowledge, then, of the causes, nature, and effects of uræmic phenomena, what are the most effective agents we are able to bring to bear against this grave disturbance? With regard to the motor disturbances induced, the agents which have heretofore proven of the most service, have been chloroform, chloral hydrate, bromides, venesection, and (apparently) morphine[1] administered subcutaneously. In this class of cases, I should in future be strongly inclined to make use of the calabar bean extract on physiological grounds. I am not aware that it it has been used in such cases, but it would be interesting to know if practical results bear out its physiological indications. The eclampsia of pregnancy should be its more legitimate field of curative action.

While such agents as we have just named may sometimes control convulsions, and thus preserve life, yet, they all[2] have a limited range of action, influencing only the toxic effects on the brain and nervous system, while the poisonous influence pervades the system at large, and is equally liable to overcome some vital organ and cut life short. It is evident, therefore, that such do not aim at the uræmia itself, but rather at its effects, and that only in a limited field. What we yet require, is agents that will modify the toxic principle itself in the system; in other words, those which will act chemically, instead of physiologically, in order to modify or control uræmia in its totality. So far as my own experience is concerned, the only remedy which has seemed to me to exercise such action to any appreciable extent, is the subcarbonate of iron. Fortunately, this is a remedy peculiarly fitted on other grounds, for use in the vast majority of conditions associated with uræmia. It was indeed the latter circumstance, that first led me to notice its influence over uræmic symptoms. A patient having passed through uræmic convulsions, still exhibited threatening symptoms for more than a week after, notwithstanding the daily use of hot air baths, purgatives, and chloral hydrate. Being very anæmic, I ordered the iron carbonate in full doses, and his uræmic symptoms subsided so rapidly that my attention was directed to the possible agency of the iron in the favorable result.

My next trial of it was in the case of a patient suffering from granular kidneys, and marked hypertrophy of the heart, the result of nephritis in two successive pregnancies. Living at some distance, the patient was only able to come to town about once a week. On one of these visits, she was suffering from rather sharp uræmic manifestations, as severe headache, nausea, etc. She was given iron subcarbonate in large doses, and directed to report, if not improved in two days. She returned in a week stating that the headache, nausea and other unpleasant symptoms had promptly subsided on the use of the iron. Unfortunately the subcarbonate was discontinued, and death by uræmia soon after followed. The less urgent manifestations of uræmia, such as occipital or frontal headache so common in these cases, I have repeatedly observed disappear (usually in a couple of days or sooner) under the use of the subcarbonate. I shall attempt no further explanation of the *modus operandi* of the subcarbonate of iron in such cases than to suggest that it is probably chemical, in some way modifying the toxic agent in the blood, possibly by oxidation. In my hands, the best results seem to follow very large doses of the subcarbonate (from 20 to 30 gms.) repeated every two or three hours.

We have said nothing thus far of the eliminative treatment of uræmia, or of the means of getting rid of the accumulation of the toxic matters through the natural channels of the system. The results of these methods of treatment, have been so obviously beneficial, that there is little room for argument on the question. Indeed, all treatment for uræmia must sooner or later converge to this point, if we hope for the machinery of the system to become capable of permanently freeing itself from clogging, without outside assistance. The kidneys themselves being the natural outlets for these toxic elements, it is self-apparent that the best results will follow the free establishment of the urinary secretion. After what I have already said in reference to diuretics in the beginning of this paper, it will be unnecessary to add more upon the subject here.

The skin deserves special consideration, however, in this connection, as it is capable of being stimulated into very free eliminative action, under the influence of certain agents. The most efficient of these are hot air baths and jaborandi, or the active principle of the latter, pilocarpin. The most thorough action obtainable is by means of dry hot air, in preference to vapor baths, or wet packs, for the reasons that evaporation from the skin is vastly more rapid in dry than in moist air. Of scarcely less importance is the fact, that the bodily temperature is by no means so much exalted by dry, as moist hot air, for obvious reasons. One precaution is necessary in the use of all hot baths, either aqueous, or atmospheric. If the symptoms of uræmia are very active, more especially as is often the case here, the temperature is elevated, to say 101° F., or over, the hot bath is apt often to precipitate convulsions, or, as I have likewise witnessed, active uræmic intoxication. Under such circumstances then, it will be safer to establish free catharsis first, which will lessen the urgency of uræmic symptoms, and lower the temperature, after which, the hot baths are rendered both more safe, and efficient.

[1] It may be justly questioned if we have a right to risk the use of morphine in the necessary doses to control tonic spasms, since ample experience has shown the frequent dangerous effects of opium on the renal conditions which most commonly give rise to uræmia.

[2] We may perhaps except venesection, but unfortunately this is inadmissible in most renal diseases giving rise to uræmia.

Jaborandi in its action on the skin does not possess the above mentioned disadvantage, though it has some contra-indications which it is well to bear in mind. It is frequently very depressing to the hearts action, producing marked prostration, and moreover, it is frequently quite irritating to the respiratory system. The latter fact is deserving of the more importance in consequence of the fact that bronchial and pulmonary complications are peculiarly liable to arise during renal incompetency. I have witnessed, as I believe, the comatose symptoms relieved by means of philocarpine injections, but only to hasten the actual development of previously threatened pneumonia, followed by death. The use of jaborandi should be limited to cases which evince no bronchial, pulmonary, or cardiac tendencies; thus the eclampsia of pregnancy especially constitutes an appropriate field for its action.

Finally, the intestinal tract is a peculiarly efficient avenue of escape for these toxic agents which give rise to uræmia, and one which is capable of being readily excited into the greatest activity. This has been so long, and so well known, and so generally taken advantage of, that nothing seems necessary to be added in the way of lending force to the fact. Something may however be suggested here, as to the most appropriate agents to be employed in special cases. Elaterium has been the favorite agent employed heretofore, for the purpose of bringing about copious watery stools, and, in many respects it is admirably adapted for the purposes under consideration. Not infrequently however, elaterium produces sharp irritation in the intestinal mucous tract, so much so that under some circumstances we hesitate to give it. Unfortunately, also, in many renal diseases (most) leading to uræmia, the bowels are more or less the subject of irritation already existing. Under such circumstances, it is desirable to use intestinal eliminants, which, while efficient in action, will not violently agravate existing irritation. In such cases I have found the administration of the concentrated saline solutions, as recommended by Professor Mathew Hay, to meet the requirements quite satisfactorily. Dr. Hay found on investigating the action of salines, such as magnesia sulphate, and Rochelle salts, that if given in very concentrated solution, they bring away enormous quantities of fluid from the intestines, attended by but little intestinal irritation, and systemic disturbance. The amount of drain from the blood of aqueous elements is very decided, carrying with it in solution the toxic agents productive of uræmia. This drain is of course made good through ingoing fluids into the vessels, to equalize the volume of the blood, and hence that fluid is unloaded of much of the excrementitious waste contained therein. The best results are obtained from the administration of half, to an ounce of magnesia sulphate, in about two ounces of water, given in the morning, after permitting no fluids to be taken during the night; nor must water or fluids be drank for a few hours after, lest they dilute the saline in the intestines, and defeat its action. Dr. Hay originally proposed this as a method of rapidly reducing dropsy, and local serous effusions, and I can testify to its efficiency in such cases also.

There is one danger which it is well to have regard to in all eliminative treatment of uræmia under certain conditions, especially that of dropsy. It is said that considerable quantities of those toxic agents become stored up in the dropsical fluids in the great cavities, and cellular tissues of the body, and that if the dropsy is rapidly reduced, through purgation, or other eliminative means, the toxic matters thus stored up are thrown suddenly into the circulation, and are liable thus to precipitate convulsions, or coma. Dr. Ralfe believes that this danger exists from the use of eliminants, even when dropsy is not present, owing to the concentration of the blood induced by their action. I know of but one way to combat, or to lessen this danger, and that is to keep the blood diluted by copious draughts of water, while the eliminative measures are being carried out; and I believe this to be a very important consideration in such cases.

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COCAINE IN DENTAL SURGERY.[1]

BY JOHN S. MARSHALL, M.D.,

OF CHICAGO, ILL.

The hydrochlorate of cocaine, like all new remedies which have promised to mitigate the sufferings of mankind, was hailed with enthusiasm; and in certain lines of practice it is already gaining a firm foothold as a local anæsthetic, principally in ophthalmology and in many operations upon mucous and serous tissues. On the other hand, the subject has lost much of its interest to dental surgeons from the fact that it has proved a disappointment where it was hoped that it would be of the greatest benefit, viz.: as an anæsthetic or obtunder of sensitive dentine. And now that the enthusiasm over the drug has waned, and we begin to investigate its claims with cooler heads and less biased judgment, many of the published accounts of its wonderful effects upon sensitive dentine and the other tissues of the teeth it would seem must have originated very largely in the imagination of the writers rather than that they were clinical facts.

New forms of the drug have, however, been more recently introduced which promise better results; and my excuse for presenting this paper is to call your attention to the citrate of cocaine by presenting the results of a series of experiments made with the hydrochlorate, the oleate, and the citrate; leaving you to judge which promises to be of the greatest benefit as a local anæsthetic or obtunder of sensitive dentine. For operations upon mucous tissues there seems to be but little difference between any of these forms, but upon sensitive dentine and pulp tissue it will be seen that the citrate in my hands proved much more satisfactory than either of the others.

To illustrate the effects of these three forms I have chosen from my records the first ten cases upon which each of these remedies was tried:

The Hydrochlorate, or Muriate of Cocaine.—

[1] Read in the Section of Dental and Oral Surgery, at the Thirty-Sixth Annual Meeting of the American Medical Association.

$C_{17}H_{21}NO_4$,HCl contains about 88 per cent. alkaloid cocaine, and is made by neutralizing the alkaloid with HCl, using as little water as possible and evaporating until crystalization takes place. When this remedy was first introduced as a local anæsthetic we had great hopes of it as an obtunder of sensitive dentine, but after repeated trials with a two per cent. solution, my enthusiasm cooled, for in nearly every case it was more or less a failure. This I attributed to the fact that a dense tissue, like dentine, absorbs so slowly that a sufficient quantity of a two per cent. solution could not be taken up to produce anæsthesia, and therefore concluded that the solutions needed to be stronger. To test this I procured ten per cent. and twenty per cent. solutions, but was unable to get any better results with the twenty per cent. than with the two per cent. A forty per cent. solution has also been recommended. This I have not tried, but from the experience of others who have experimented with it, it seems to have no advantage over a four per cent. or ten per cent. solution.

Case 1.—Mrs. Dr. D., aged 30, just recovered from her third confinement. Several large cavities to fill. Teeth soft and very sensitive. Applied a two per cent. solution of hydrochlorate of cocaine (Foucar's) to two buccal cavities extending under the gum, the inferior left first and second molars. The cavities were first dried and then painted with the solution. In five minutes this was repeated, and at the end of ten minutes the rubber dam was applied without pain, and the cavities excavated with so little discomfort as to call forth expressions of delight from the patient.

Case 2.—Willie S., a frail boy aged 15 years, a frequent sufferer from nervous sick headache, and obliged to give up study on this account. Teeth soft and exquisitely sensitive, and from his nervous condition the operation nearly unbearable. Applied the two per cent. solution to a large crown cavity in the inferior right second molar; after four applications at five minute intervals could obtain no appreciable effect.

Case 3.—Mrs. A. J. L., age 24 years, in good health and nursing her first child, aged 9 months. Teeth of medium structure and only normally sensitive. Adjusted the rubber dam to the superior left second molar and applied the two per cent. solution to a distal cavity three times at five minute intervals, but at the end of twenty minutes there was no diminution of sensation.

Case 4.—Mrs. L., aged 24 years. Applied the two per cent. solution to the necks of the inferior anterior teeth and gums, these teeth being affected with pyorrhea alveolaris. After two applications at five minute intervals, the gums were completely anæsthetized, and I was able to operate with very little pain. At a previous sitting, without the aid of the cocaine, the operation was exceedingly painful.

Case 5.—Mr. L. E., aged 50 years. Health fair. Applied Merck's ten per cent. solution for the extirpation of a living pulp, the rubber dam being previously adjusted and the pulp fully exposed, but after four applications at five minute intervals there was no abatement of sensation.

Case 6.—Miss Celia D., domestic, aged 26 years. Health good and teeth of fair structure. Applied Merck's ten per cent. solution three times at five minute intervals to four cavities in the inferior left bicuspids, with very slight diminution of sensitiveness.

Case 7.—Dr. McG., a professional friend, aged 26 years. Teeth strong and dense. Made three applications of Merck's ten per cent. solution at five minute intervals, to two large and sensitive cavities in the superior left first molar, but could get no favorable results; on drying the cavities with the hot-air blast was able to excavate with considerable mitigation of the pain.

Case 8.—Master George L., aged 14 years. Health not very good; suffers from headache on the least nervous excitement. Teeth very soft. The application of Merck's twenty per cent. solution in the same manner and at the same intervals to several sensitive cavities seemed to afford a little relief. The hot-air blast was also used and seemed to afford still greater relief.

Case 9.—Master Charles H., aged 16 years, and in fine health. Teeth medium in structure. Merck's twenty per cent. solution was applied, as above, to several teeth at different sittings with only a very slight abatement of the sensitiveness. The hot-air blast was also used in this case upon teeth which had been treated with the twenty per cent. solution, and upon teeth which had not; and the sensitiveness was lessened just as much in those teeth where the hot-air blast was used alone, as where it was used in connection with the cocaine.

Case 10.—Mrs. L. B. M., aged 24 years. Health good; teeth medium in structure. Applied Merck's twenty per cent. solution to two very sensitive cavities four times at five minute intervals, but with no perceptible benefit.

Oleate of Cocaine.—$C_{17}H_{21}NO_4$,$C_{18}H_{33}O_2$. Normal oleate of cocaine contains from forty-eight to fifty-two per cent. alkaloid cocaine, and is prepared similarly to the hydrochlorate, using oleic instead of hydrochloric acid. Through the kindness of McKesson and Robbins, I was able to test the efficiency of the normal oleate and the five per cent. manufactured by them.

Case 1.—Annie O. B., dispensary patient, aged 12 years. Applied five per cent. oleate to the gums for the extraction of an abscessed inferior right first molar. Made three applications at three minute intervals. Gum lost sensation in eight minutes, and the tooth was extracted at the expiration of twelve minutes. Patient said "It hurt very badly."

Case 2.—Mr. K., dispensary patient, aged 40 years. Applied five per cent. oleate to the gums for the extraction of the root of the superior right first bicuspid, which was the seat of an abscess, and very sore to the touch. Made two applications at three minute intervals. At the end of seven minutes the gums had lost sensation, and at ten minutes from the first application the tooth was extracted. The patient declared the pain was considerable, but not as bad as he expected.

Case 3.—Mr. E. F., Sr., aged 60. Teeth dense. Attempted to extirpate a living pulp for this gentle-

man from the inferior left second bicuspid. Applied the five per cent. oleate twice at three minute intervals; at the expiration of ten minutes there was no anæsthetic effect. Made a third application, and at thirty minutes—the pulp being bathed in the oleate all this time and moisture excluded by the rubber dam—there was no appreciable anæsthetic effect. Then applied the normal oleate for fifteen minutes with no better success.

Case 4.—Mrs. T. H. B., aged 30 years, and in the most perfect health. Teeth medium. Applied five per cent. oleate to a crown cavity in the inferior right wisdom tooth. Made three applications at five minute intervals; slight pain on making the first application. At the expiration of twenty-five minutes there was no effect.

Case 5.—Mrs. George A., Jr., aged 28. Health not very good. Teeth soft. Is a frequent sufferer from nervous head-ache, and exceedingly nervous about dental operations. Applied five per cent. oleate to a very sensitive crown cavity in the inferior left second molar. The dam was adjusted and the cavity bathed with the remedy; at the end of ten minutes no effect; at twenty minutes the same; at thirty minutes still no abatement of sensitiveness. The normal oleate was then applied for ten minutes with no better result. (Since recording the above I have tried the citrate upon another tooth for this patient, equally as sensitive as the one just mentioned, with entire success.)

Case 6.—Master Joe R., aged 11 years. Teeth soft and very sensitive. Applied five per cent. oleate in the usual way to several cavities, and followed it with the hot-air blast, but was unable to completely obtund the sensitiveness. (At still other sittings of a later date have used the citrate with entire success.)

Case 7.—Miss Margaret M., aged 14 years. Highly nervous organization. Teeth of fair structure, but exceedingly sensitive. Applied five per cent. oleate to two cavities four times at three minute intervals, with but very slight obtunding effect.

Case 8.—Mrs. Anna B., aged 40 years. Health good. Applied the five per cent. oleate to the gums preparatory to fitting the band for an artificial crown, upon the root of the superior left central incisor. In fifteen minutes anæsthesia of the gum was perfect, but at the border of the alveolus, sensation was still acute; this I was unable to overcome after an hour's trial.

Case 9.—Miss J. P., aged 35 years. Health much impaired from long-standing uterine trouble. All the teeth affected with pyorrhea alveolaris. Applied five per cent. oleate twice at five minute intervals, and in fifteen minutes was able to scrape the roots of the teeth and slit open the pockets with very little pain.

Case 10.—Mrs. E. B., aged 42 years. Health good, teeth dense and only normally sensitive. Two applications of the five per cent. oleate at ten minute intervals diminished the sensitiveness, but it was not entirely overcome.

Citrate of Cocaine.—$(C_{17}H_{21}NO_4)_2\ H_3C_6H_5O_7$. Contains about eighty-one per cent. of alkaloid cocaine, and is made after the same process as the other forms, except that citric acid is used. This form of cocaine was first manufactured and recommended by E. Merck, of Darmstadt, as likely to be most satisfactory as a local anæsthetic for sensitive dentine. My attention was first called to it by a letter in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, written from Wiesbaden, Dec. 4, 1884, by Dr. Sarah Hackett Stevenson. I at once took steps to procure a sample manufactured by Merck for experimentation, but was unable to obtain it in this country. Messrs. McKesson & Robbins, however, kindly prepared a sample for me, and this was made into pills, each containing one-fourth grain; the excipient used being gum tragacanth dissolved in glycerine. This readily dissolves on being moistened with water, and therefore makes a very convenient vehicle for its introduction into the cavity. The citrate does not keep well in solution as it decomposes in three or four days. My method of using it is as follows: Remove all loose debris from the cavity, wash it out with tepid water and apply the rubber dam. Place in the cavity one-sixteenth or one-eighth grain of the citrate (divide a pill into two or four equal parts), according to the size of the cavity, and place over it a pledget of cotton, moistened with tepid water; the excipient soon dissolves and flows over the surface of the cavity. In five minutes I test the dentine, and if still sensitive make a second or third application.

Case 1.—Miss Eva J. B., aged 26 years. Health good. Teeth soft and very sensitive. Applied one-sixteenth grain of the citrate to a distal cavity in the superior right lateral incisor. Slight stinging pain on application; this subsided in about three minutes; in five minutes the tooth felt benumbed (as described by the patient); in ten minutes the cavity was excated without the least pain. The anæsthetic effect lasted for about one hour.

Case 2.—Miss N. E. C., aged 19 years. Health fine. Teeth of good structure but quite sensitive. Patient has a great dread of dental operations. Applied one-sixteenth grain of the citrate. Slight pain on coming in contact with the dentine; this soon subsided, and in five minutes the sensitiveness was considerably lessened. Made a second application of one-eighth grain, which was allowed to remain ten minutes, when sensitiveness had entirely disappeared, and the operation was completed without the slightest pain.

Case 3.—Mrs. John J., Jr., aged 35 years. An exceedingly nervous patient, and more or less an invalid for the last ten years. Teeth soft. Applied one-eighth grain of the citrate to a superficial cavity on the mesial surface of the superior right first bicuspid. Dentine exquisitely sensitive to heat, cold, acids, sugar, etc., and the least touch of the excavator caused intense pain, and throws the patient into a nervous tremor. Severe pain followed the application of the citrate, which did not subside until twenty minutes afterwards. Made a second application of one-eighth grain ten minutes after the first. In twenty minutes from the first application was able to partially excavate the cavity; a third application of one-sixteenth grain was then made, and in thirty minutes from the first was able to finish the

operation. The patient said the tooth was still sensensitive but endurable. I had tried some weeks previously to excavate a cavity, under the effect of a Merck's twenty per cent. solution, but failed to obtain any favorable results with it.

Case 4.—Miss C. E. N., aged 20 years. Health good. Teeth of fair structure. Applied one-sixteenth grain of citrate to two sensitive proximal cavities in the superior left first and second bicuspids. Slight pain on application; at the end of five minutes sensitiveness was entirely overcome in both, and the operation was completed without pain.

Case 5.—Mrs. John B., aged 30 years; in fair health. Removed the remnants of the pulp in the superior right first molar, which had resisted devitalization after three applications of arsenous acid. The pulp was hypersensitive in all three roots. In fifteen minutes after the application of one-eighth grain of citrate, was able to remove the pulp without the least pain.

Case 6.—Miss Alice C., aged 16 years. Health good. Teeth soft. Suffering severe odontalgia from exposed pulp in the inferior right first molar. Applied one-sixteenth grain citrate for the relief of the odontalgia; in five minutes made a second application, and in ten minutes a third, each time doubling the dose, but after a full half hour there was no mitigation of the pain. Dressed with oil of cloves and one-eighth grain morphia sulph., with the effect of controlling the pain in about five minutes.

Case 7.—Mr. Henry C., aged 18 years, in poor health. Teeth soft and very sensitive. Applied one-sixteenth grain to a buccal cavity in the inferior left second molar. Severe pain followed the application, which lasted about five minutes. Made a second application of one-sixteenth grain, and in fifteen minutes excavated the cavity without pain.

Case 8.—Miss Anna P., aged 24 years. Health good. Teeth of dense structure. Applied one-sixteenth grain each to two buccal cavities in the superior right and left second molars. Slight pain on application, which lasted about three minutes. In ten minutes was able to operate without pain.

Case 9.—Miss Sophia N., aged 23 years. Health good. Teeth soft. Applied one-sixteenth grain each to two mesial cavities in the superior right and left central incisors. Very slight stinging pain on application. At the expiration of fifteen minutes dentine still sensitive; made a second application of one-sixteenth grain, and in thirty minutes the dentine was still slightly sensitive at the bottom of the cavities. Operated with but little pain.

Case 10.—Mr. J. C. S., aged 20 years. Health good. Teeth dense, and only normally sensitive. Applied one-sixteenth grain each to several cavities, and in each of them one application was sufficient to completely obtund the dentine in from eight to ten minutes.

Since recording the above cases I have had opportunity to more thoroughly test the merits of the citrate, and as an obtunder of sensitive dentine it has in my hands fulfilled in nearly every instance all that it gave promise of doing. From the cases recorded you will notice: 1. That it is much more reliable when applied to sensitive dentine than either hydrochlorate or oleate. Whether this is due to the special form of the drug or to its greater concentration as applied to the dentine, I am unable to say. 2. That it also seems to act more promptly, whether applied to sensitive dentine, pulp tissue, or mucous membrane, than either of the other forms. 3. In every case, so far, in which I have used it for obtunding sensitive dentine, the citrate causes a more or less sharp, stinging sensation, being similar to that produced by the application of spunk or bibulous paper in drying the cavity, or of mild solutions of chloride of zinc; but this passes away in from two to five minutes. Why the application of the citrate should produce pain I am unable to say, unless it is caused by the rapid absorption of the fluids contained in the dentinal tubuli; as the citrate and the glycerine excipient have strong affinities for water, or possibly the citric acid is not completely neutralized. Why case 5, in which the citrate was applied for the removal of a pulp, should be so successful, and the next case, in which it was used for the relief of odontalgia, should prove such an utter failure, is to me also equally unaccountable.

The record of such a small number of cases, apparently successful, does not of course prove the citrate to be a perfect local anæsthetic for operations upon the teeth, but I trust they will be useful in calling attention to this form of the drug, and stimulate others to further test its merits.

242 Wabash Ave.

MEDICAL PROGRESS.

ANATOMY AND PHYSIOLOGY.

LARGE DOSES OF IPECACUANHA IN ACUTE PNEUMONIA.—Large doses of ipecacuanha in acute pneumonia were much given at the commencement of this century, its antiphlogistic and depressing action being empirically recognized. Trousseau, Pétér, and other well-known physicians were aware of the good effect of these large doses. Verardini's observations confirm the utility of this method of giving ipecacuanha. The dose ranges from 2 grammes (30 grains) to 4, 6, or even 8 grammes. These doses are well borne and rarely cause sickness; the tolerance of the drug is in relation with the gravity of the pneumonia. This may be caused by a paralysis of certain nerve-centres, as Finkler and Zunt have shown. The action of the ipecacuanha is to cause contraction of the blood-vessels and capillaries. Large doses of ipecacuanha have not the same effect as emetin; the first cause pulmonary ischæmia, while the second cause marked hyperæmia.—*London Med. Rec.*, July, 1885.

MATERIA MEDICA AND THERAPEUTICS.

A NEW METHOD OF EMPLOYING BROMIDE AND IODIDE OF POTASSIUM.—The marked repugnance which the bromide and iodide of potassium provoke in many patients, in whom they are imperiously indicated for numerous affections of a rheumatic, gouty, nervous, scrofulous, and syphilitic nature, has led to various hitherto but partially successful efforts of

freeing these valuable drugs from this objection. Epileptic patients, who have to take large doses of the bromide of potassium daily, often object to this treatment on account of the gastric irritation which the remedy produces. There are even syphilitic patients who prefer the consequences of their diathesis to the ingestion of the potassium salt, for which they express an indomitable antipathy. In women especially, in whom the exhibition of bromides is so often called for, the practitioner is occasionally confronted with the necessity of abandoning a positively useful drug for the sake of the subjective inconvenience it causes in the patient. Children, when being treated with bromides for cardiac affections, likewise show their disgust of the medicine very plainly.

Though a great number of preparations containing these drugs in a syrupy vehicle have been offered to the medical public, we find that the nauseating, syrupy taste is always objected to by the patients, and that the exact regulation of the dose is rendered somewhat difficult, as the spoon is sometimes more, sometimes less, accurately filled. In the light of these facts, it must be regarded a pharmalogical acquisition that MR. POISSON, a prominent French apothecary, had the happy thought of incorporating these salts with chocolate and presenting them in the form of pastilles (lozenges), containing each 3 grains of either drug (*Le Progrès Médicale*, April 4, 1885). Ease of ingestion, even for the most delicate and fastidious patients, perfect preservation (they contain butter of cacao), ready solubility, and avoidance of all gastric irritation, are the striking features of the new preparation, which, we feel convinced, will rapidly rise in favor even in this country. It would possibly be advantageous to prepare also lozenges containing a higher percentage of the salts, as large doses of the drug are occasionally to be taken. In conclusion, we beg to recall that Cl. Bernard has long intimated that the absorption of both bromides and iodides would be essentially facilitated by the combined addition of fatty matters and sugar. Poisson's preparation, then, appears in perfect correspondence with Cl. Bernard's prescription.—*Therap. Gazette*, June, 1885.

DESSICATED OX-BLOOD.—The old popular belief in the medicinal virtues of a blood-regimen has recently been resumed with considerable enthusiasm. In Paris, as we read lately in a secular journal, there are butcher-shops exclusively devoted to the preparation and instantaneous dispensation of this rather repulsive medicine. As efficient adjuvants to this cure, baths in the same menstruum are equally *en vogue*. From theoretical grounds, there would appear little doubt that this indirect transfusion of animal blood can exert a favorable impression upon a flagging or wasting constitution, though we fail to appreciate the utility of the blood-bath. It is, then, little surprising that therapeutists, in just deference to the popularity of the remedy, have subjected it to clinical trials, and, having become convinced of its therapeutic value, do not hesitate to use it, though in a somewhat modified form.

GUERDER (*Deutsche med. Zeit.*, March 17, 1885) openly advocates the systematic administration of ox-blood powder, prepared so as not to remove the salts of the blood. Fresh defibrinated blood is heated for four or five hours in a water-bath, and then slowly dried by currents of warm air, the entire preparation covering a period of at least three days.

Guerder gave this blood-powder to fifty-one sick and healthy individuals, and reports that it was well borne by forty-four of them. In three instances (reconvalescence from typhoid fever) he noted vomiting, and in four others (anæmia) gastric irritation.

Children usually are ordered 2 drachms, adults 6 drachms, of the powder, to be taken at meal-time in cold liquids (water, wine, milk, black coffee.)—*Therap. Gazette*, June, 1885.

MEDICINE.

LIPOCARDIAC ASTHMA.—Under the name of "lipocardiac asthma," PROFESSOR CANTANI gives an account of the affection described by him since 1864 as "fatty heart asthma." The patient is perhaps quiet in bed or in an arm-chair, when suddenly without any apparent reason, the rhythm of his respiratory movements is disturbed. Little by little, sometimes almost insensibly, his respirations become less frequent, shorter and more profound, amounting at times to a laborious and even stertorous dyspnœa. Gradually the respirations become more frequent and profound, returning by degrees to the normal. Such attacks are usually short in duration; severe attacks last only a few minutes, and mild attacks only about two or three minutes. At first the outbreaks are unfrequent —about once a month, or three or four in the course of the year; and then they follow fatigue, muscular efforts, or emotional disturbance. As time wears on, the attacks begin to recur at short intervals and without apparent cause.

The origin of these symptoms, according to the author, lies not in mere fatty hypertrophy of the heart, but in fatty degeneration of the muscular tissue of the organ. The symptoms show themselves when the heart begins to be tired. With this muscle, however, fatigue means impossibility to continue its work with its usual power. It require, therefore, a brief period of relative repose, of less energetic contraction. This, however, involves a less complete emptying of the ventricles. Now, during this period of relative repose, of fatigue of the heart, the quantity of blood driven into the lungs by the right ventricle and to the rest of the body from the left ventricle is, for the time, diminished. Not merely, therefore, is there less blood oxygenated in the lungs, but the blood that is oxygenated is distributed more slowly throughout the body. This insufficient supply of blood to the tissues provokes a nervous erythism, or general hyperæsthesia.

The recognition of lipocardiac asthma is important, inasmuch as the prognosis is much more unfavorable than in any other kind of cardiac asthma. It must be distinguished from angina pectoris, with which it is apt to be confounded, and with which, in fact, it is rarely conjoined. Another disorder of respiration with which it might be confounded is Cheyne-Stokes' respiration. Cheyne-Stokes' respiration, however, is

a symptom in various morbid states. It has a different significance. In it there is apnœa; in lipocardiac asthma, on the contrary, there is only dyspnœa. Cheyne-Stokes' respiration occurs at brief intervals, and does not occur long before death. Lipocardiac asthma occurs at distant intervals, and may occur for many years before death.

The treatment of lipocardiac asthma consists in improving the general health of the patient. Against the symptoms, digitalis, convallaria, valerianate of quinine, caffein, cognac, red wine boiled with cannella, etc., may be useful. In fatty persons who are not too old, ferruginous preparations may be tried.—*London Med. Record*, Aug. 15, 1885.

Dilatation of the Stomach in Children.—Dr. Comby, of Lyons (*Lyon Méd.*, No. 49, 1884), regards gastric dilatation due to dietetic errors as an affection of greater frequency than commonly believed. Though appearing most frequently in children fed artificially, especially if early accustomed to solid food, it is occasionally found in nursing children, and is then to be attributed to either excess in quantity or undue richness of the milk. The most prominent symptoms of the affection are inflation of the stomach, tympanitis, and a ringing noise (*bruits de clapotage*), as also found in adults.

Occasionally we find alongside of dyspeptic troubles nervous symptoms, such as convulsions, insomnia, and sometimes eczema and impetigo. Comby refers also to the coincidence of this affection with rachitis, though without regarding it as a rachitic symptom.

The prognosis is to be guarded, as the affection sometimes extends to puberty, and even longer. The treatment is to be of an exclusively dietetic nature. Artificial food is to be excluded, improper articles of diet to be banished, the weaning to be delayed, and strict general surveillance to be enforced. Washing out the stomach has, in some instances, proved advantageous.—*Therap. Gazette*, June, 1885.

Lactic Acid in Laryngeal Tuberculosis.—Dr. H. Krause, in following up the experimental application of lactic acid as pointed out by Mosetig-Moorhof, who has found its valuable in the local treatment of fungous caries, lupus vulgaris, superficial epithelioma, and papilloma, has made use of the remedy in the local treatment of laryngeal tuberculosis. The cases which he records had previously been under treatment, and a great variety of agents was used without beneficial result. Among the remedies used were iodoformized glycerine, boric acid, carbolic acid, and creasote either with morphia or cocaine.

The cases in which the pathological condition was treated are fourteen in number, and microscopic examination showed the presence of the bacillus tuberculosis in every instance. The results of the local application of the lactic acid were as follows: Hand-in-hand with the decrease of the infiltration and the scar of the ulcer a diminution of pain was noticed, and at the same time diminution of the secretion. The subjective result so far as the larynx is concerned is, that in all the patients, without exception, the condition was markedly improved.

Concerning the return and persistence of the cure after cessation of treatment nothing can be reported on account of the limited time covered by the observations. Dr. Kraus considers, however, that the use of the acid is of certain efficacy in the treatment of this form of tuberculosis, and especially worthy of trial in the light of the failure hitherto experienced in the treatment of this affection of the larynx.

Even in cases in which, owing to far advanced pulmonary tuberculosis, and the general effects of the disease, only a most unfavorable prognosis could be given, the dysphagia accompanying the disease was much diminished by lessening perichondrial œdematous infiltration. The writer further does not hesitate to express a hope that in the least unfavorable cases in which laryngeal tuberculosis has not advanced too far, and the general constitution is well conserved, the use of lactic acid will render it possible to destroy the infiltrated tissue and effect the concurrent cure of the local process. The writer, in conclusion, also suggests the application of lactic acid in other diseases of the mucous membrane of the upper air-passages, among which may be mentioned the diffused swelling and circumscribed thickening accompanying chronic nasal pharyngeal and laryngeal catarrh.—*Berliner klin Wochenschr.*, July 21, 1885.—*Medical News*, Aug 22, 1885.

Glycerine as A Prophylactic against Trichinosis.—In the *Archiv für Kl. Med.*, Bd. 36, 1885, is a very striking illustration of the prophylactic value of glycerine against trichinosis, which, though denied by Fiedler, has been previously upheld by Heller (*Riemssen's Hanb. d. Pathol. u. Ther.*, Bd- iii, S. 404).

A travelling merchant, who had taken some ham with him from home, was suddenly advised by a telegram that the ham contained trichinæ, which was positively verified by a physician to whom he presented the ham for examination. Having, however, previously eaten of the ham, he entered a hospital for treatment. His diet was restricted to a minimum, and he was given first 10 ounces of infusum fol. sennæ comp. in combination (which removed some uncapsulated trichinæ), and was then placed on a glycerine treatment, a teaspoonful to be taken hourly for several days. He completely escaped all symptoms of trichinosis, while nearly all his relations at home, who had also eaten from the same ham, contracted serious illness.—*Therap. Gazette*, June, 1885.

SURGERY.

Experiments on Engrafted Bone.—Dr. Ambrogio Ferrari, after a series of experiments on the phenomena attending the engrafting of bone, draws the following conclusions:

1. Pieces of bone engrafted into the shaft of a long bone become completely united and continue to live.

2. They not only continue to live, but also grow.

3. That these results follow without reference to the position in which the engrafted bone is placed.

4. The reunion of grafts occurs by a true vascularization which takes place between the engrafted bone and that into which it is introduced.

5. That a bony callus, periosteum, and medulla are formed in relation with the engrafted bone.

6. That this callus possesses a temporary vitality, as in fracture.

7. That after a certain time the callus, periosteum, and medulla are absorbed, and the engrafted bone is nourished only by a greater vascularization.

8. That grafting occurs more completely if the inserted bone is in exact adaptation with the margins of the bone receiving it. While this observation is not verified, in a case where the opposite condition existed, a longer time was necessary for union to take place.

9. The most complete and careful antisepsis is required in order that complete union of the engrafted bone may occur.

10. The engrafting of several pieces of bone is completely successful.

11. That in case of engrafting of several pieces of bone with partial suppuration, union of some of the pieces may take place, provided suppuration does not extend to that portion of the engrafted bone in communication with the medulla.

12. Besides antiseptic precautions, compression is required to maintain contact between the medulla and the pieces of bone engrafted, in order to obtain a successful result.—*Gazzetta degli Ospitali*, July 22, 1885.

DIAGNOSIS OF CHANCRE OF THE TONSIL.—DR. FRANK DONALDSON, Jr., gives the diagnosis of chancre of the tonsil as follows:

SYPHILIS.	CANCER.
Functional Symptoms.	*Functional Symptoms.*
Deglutition and swallowing painful, but rarely impossible, with freedom from pain when the parts are at rest.	Difficulty and pain in swallowing the first and constant symptom, increasing until it is impossible to take food. Lancinating pain referred to the ear.
Physical Signs.	*Physical Signs.*
Some hypertrophy with early superficial ulceration in primary sore. The tertiary ulcer perforating and cone-shaped. Comparatively slight glandular enlargement, not painful, and subsides with the cause of the irritation.	Great hypertrophy, later wide-spread ulceration. Considerable glandular enlargement and induration, which become very painful, and do not disappear.
Hemorrhage rare.	Hemorrhage frequent.
Slight emaciation.	Great emaciation.
Amenable to treatment.	Not cured by any treatment.

Tonsil chancre may, under some circumstances, be taken for a mucous patch, whose favorite seat would seem to be upon the surface of the tonsil; and this is more likely to happen when the patient is seen for the first time, and secondary symptoms have already manifested themselves, and an ulcer still remains upon the tonsil; or when there is hypertrophy of the tonsil, with an active, and by no means superficial, ulceration of the mucous patch. The mucous patch, however, always follows the roseola; and the patch is, as a rule, superficial and of characteristic appearance, etc. To determine finally between a chancre and a mucous patch upon the tonsil Diday says: "Cauterize the ulcer twice at an interval of five days, and if it is a secondary ulcer, it will disappear; if a primary, hard chancre, it will not."

In exceptional cases chancre of the tonsil is complicated by an extensive slough. The presence of a grayish ulcer, surrounded by an œdematous circle, with inflammation of the surrounding parts, points strongly to a gangrenous throat affection, either of a syphilitic origin or a primary gangrenous angina, such as is described by Gubler and Trousseau. The limitation of the ecchymotic spots, and the absence of its propagation to the pharynx, palate, and larynx, and the general course of the affection, with the appearance or non-appearance of secondary eruption, will settle the diagnosis.

Ulcerating, gummy tumor of the tonsil is distinguished from chancre by a deeper ulceration, and by its dug-out edges. According to Legendre, a good differential sign is the existence of an erythema and peripheral engorgement, which are never found in gummy tumors, but always present in throat chancre. Further, a knowledge of the patient's antecedents will be of great value.

Finally if the lesion upon the tonsil has been of slow unilateral development, is superficial, with grayish-white deposit; if there is a history, or even suspicion of syphilitic exposure; if there is glandular enlargement; if the sore on the tonsil appeared from fifteen days to three weeks after exposure, and there is absence of chancre elsewhere; if the patient has not been subject to simple tonsillar angina; if the pain is on the affected side, has lasted for some days or weeks, and has not excited febrile reaction, and the whole is followed in due time by an outbreak of secondary symptoms, certainly we are justified in a diagnosis of chancre of the tonsil.—*Medical News*, Aug. 15, 1885.

PEAT-MOSS AS A DRESSING.—In the *Vratch*, No. 24, 1885, p. 389, DR. VASILY E. NESHEL, of the Obukhovsky Hospital, in St. Petersburg, drawn attention to dry peat-moss as an excellent and cheap absorbent and dressing material, and fully endorses the statements of Leisrink (who first began to use it), Mielk, Korach, Hagedorn, and Schede. It costs only 50 copeks per *püd* (about one shilling per 16.3 kilogrammes), may be gathered everywhere, and does not require any other previous treatment except picking out any foreign admixture (such as small twigs, leaves, etc.), occasional moistening with a solution of corrosive sublimate, and drying. Peat-moss in employed in the share of gauze bags or pads of various sizes. The wound is covered first with a piece of iodoform gauze, then with a layer of sublimatised gauze, and over the latter a gauze bag filled with moss and slightly moistened with a carbolic or sublimatised solution, is laid, the whole being kept in place by a roll-bandage. Wounds remain perfectly dry under a moss bag. The latter is found to be odorless six, eight, and more days, even in presence of very profuse purulent discharge. Any fluid absorbed by moss rapidly evaporates. To prevent overdrying, it is advisable from time to time to moisten the moss-bag lying on the wound with an antiseptic solution.—*London Med. Rec.*, Aug. 15, 1885.

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SUBCUTANEOUS SECTION OF THE LIGAMENTS IN CLUB-FOOT.

In September, 1882, M. JULES GUÉRIN presented to the Académie de Médecine a short note on "Partial or Total Ablation of the Tarsal and Metatarsal Bones in the Treatment of Congenital Club-Foot,' and most surgeons will remember the fierce discussion to which it gave rise at the time; some claiming that the proposed operation offered only an infirmity for a deformity. Nevertheless, some of the Academicians upheld him in his claim that the operation might be very beneficial in the cases in which he thought it indicated.

M. Guérin again brought up the subject at the meeting of the Académie on August 18, calling attention to the fact that in those cases which, on account of great deformity, age, or complexity, resist the ordinary means of subcutaneous tenotomy, manipulations and apparatus, there is a fourth means which may entirely correct the trouble. This consists in subcutaneous section of the ligaments of the foot (tarso-metatarsal), or, as he terms it, syndesmotomy.

The ligaments to be divided in these cases are: the inferior calcaneo-cuboid ligament in extreme plantar equinus; in irreducible varus equinus, the internal lateral ligament of the tibio-tarsal articulation, the internal calcaneo-scaphoid, and the ligaments uniting the scaphoid and cuneiform bones. Guérin claims that with this complementary operation he has not seen a single case of club-foot in more than a thousand which was not remediable—the other means being of course used after the operation. The danger from the operation is very slight, and if proper precautions be taken to avoid the blood-vessels and nerves there is, we may say, no danger. The wound always cicatrizes immediately, and without suppuration. At the same time, there are certain precautions which should be adopted, in the way of making the incision at some distance from the ligament to be divided, and, if possible, at the base of a fold of the of the skin, closing the wound after the blood and other fluids have been carefully removed, and abstaining from efforts at redressment until cicatrization has taken place, and then only to make the manipulations gradually and slowly.

This operation was first brought before the profession by M. Guérin in 1840, and it would seem that his successes with it since that time would be sufficient evidence of its value. In October, 1884, he operated on a case of extreme equino-varus, for which an ineffectual operation had been performed five years previously, when the patient was nine years old. He divided the tendo Achillis in two places, above and below the old cicatrix, both tibial tendons, the tendon of the abductor pollicis, and then divided the internal lateral ligament, and the calcaneo-scaphoid and scaphoido-cuboidean ligaments. The operation was a complete success in every respect.

In the discussion which followed, M. Bouley said that he had been astonished that this operation was not more often performed; and he thought it unquestionable that it was a most useful complementary operation to the orthopædic surgery of the foot.

ORGANIZATION OF THE NINTH INTERNATIONAL CONGRESS.

In another part of the present number of the JOURNAL, will be found so much of the proceedings of the Committee of Arrangements at its meeting in New York, on the 3d and 4th inst., as relates to the rules finally adopted for the preliminary organization and government of the Congress, including the General Officers, the Presidents of the Sections, and the Executive Committee, to which is committed all further management of the affairs of the Congress.

It will be seen that the first rule opens the doors of the Congress to all members of the regular profession of medicine in this and other countries, with no restrictions other than the simple inscription of their names on the register, and taking out of tickets of admission. That the General Officers selected and the Presidents of Sections, are not only men of eminence in the different departments of medicine in this country, but also fairly representative of the profession of the United States, as distinguished from a few chief centres, must be admitted by all candid or unpredjudiced men. That they col-

lectively constitute an Executive Committee to which can be safely entrusted the entire management of the Congress, there can be no question; yet authority is given to add a limited number of such eminent men as may be found willing to give their personal assistance in carrying on the important work devolved upon the Committee under the rules now adopted.

May we not hope, therefore, that a spirit of harmony will be fostered, and that all who hold the honor and interests of the profession above all personal considerations will cease to discuss the past, and cordially co-operate in making the International Congress of 1887 an honor to our country and a benefit to the profession of the world.

SHOULD ARSENIC BE ADMINISTERED TO NURSING WOMEN?

At a recent meeting of the Société de Médecine Légale, in Paris, M. BROUARDEL reported a very interesting case bearing upon this question. He was called upon to say whether an infant of twelve months could be poisoned by the milk of its mother when she had taken a considerable quantity of arsenic.

In the case in question, a man who had had some trouble with his wife and mother-in-law was suspected of having given arsenic to them. Both were made ill, and the child died with symptoms of cholerine a few days afterwards. As the weather was quite warm, however, it was not suspected that the death of the child was due to any other cause than a severe case of summer diarrhœa. But when the wife and mother-in-law were again attacked, with the same severe symptoms, in November, the husband was suspected; and the wife claimed to have found a package containing a white powder in her husband's pocket.

The case being then submitted to Brouardel, he exhumed the body of the child, which had been buried six months previously. It was completely transformed into adipocere, so that it was impossible to separate the viscera from the other parts. It was therefore subjected to analysis *en bloc*. It weighed about 2.50 kilogrammes, and contained 5 milligrammes of arsenic. It was impossible that this arsenic could have been derived from the cloths enveloping the cadaver or from the soil in the vicinity of the grave.

The next question was to determine whether arsenic is eliminated by the milk, and in what proportions. M. Gabriel Bouchet, for this purpose, administered Fowler's solution, in doses of gtt. ij—xij, to a number of the wet-nurses, and found that the milk afterwards contained a proportionately large quantity of arsenic. When, for example, the woman had taken 8 milligrammes of arsenic for six days, 100 grammes of milk contained 1 milligramme of arsenic. With these doses of Fowler's solution neither the nurses nor the children felt any bad effects from the experiments. In order to determine whether the effects would have been the same had the arsenic been administered in one large dose, experiments were made on animals. The results were not very conclusive, however, as the susceptibility of animals to arsenic is very variable. But it was conclusively shown that arsenic is constantly eliminated by the lacteal glands; whence it seems that it should not be administered to nursing women—or only with the greatest care.

From a medico-legal point of view it is interesting to note that Brouardel reported to the court that the body of the infant contained a quantity of arsenic sufficient to have caused the death of a child one year old, and that this arsenic could have entered the body of the child only through the mother's milk. There was no defense, and the husband was sentenced to twenty years imprisonment at hard labor.

ASSOCIATION ITEMS.

REPORT OF THE COMMITTEE APPOINTED TO ARRANGE FOR THE MEETING OF THE INTERNATIONAL MEDICAL CONGRESS IN AMERICA, IN 1887.

At the regular annual meeting of the American Medical Association, held in New Orleans, in April, 1885, the following resolutions were adopted:

1. "*Resolved*, That the Committee appointed by this Association, to arrange for the meeting of the International Medical Congress in America, in 1887, be enlarged by the addition of thirty-eight members, one from each State and Territory, the District of Columbia, the Army, Navy, and Marine Hospital Service, to be appointed by the Chairman at this meeting, and that the Committee, thus enlarged, shall proceed at once to review, alter, and amend the motions of the present Committee as it may deem best."

(This resolution was amended by the provision, "that the members of the Committee should be selected by the respective State delegations.")

2. "*Resolved*, That the Committee appointed in pursuance of a resolution adopted by this Association, April 30, 1885, to constitute an addition to the original Committee of eight previously appointed to invite and make arrangements for the meeting of the International Medical Congress, to be held in Washington, D. C., in 1887, be, and the said Committee is, hereby authorized and empowered to select a Chairman and a Secretary, and to fill all vacancies that may occur by death or inability to attend in the Committee, and to appoint the officers of the Congress."

The following is a list of the Committee enlarged in accordance with the first resolution as amended:

W. E. Anthony, M.D., Providence, R. I.
G. Baird, M.D., Wheeling, W. Va.
Robert Battey, M.D., Rome, Ga.

F. W. Beard, M.D., Vincennes, Ind.
*J. S. Billings, M.D., U. S. Army, Washington, D.C.
*J. M. Browne, M.D., U. S. Navy, Washington, D. C.
L. P. Bush, M.D., Wilmington, Del.
H. F. Campbell, M.D., Augusta, Ga.
R. Beverly Cole, M.D., San Francisco, Cal.
E. P. Cook, M.D., Mendota, Ill.
W. C. Dabney, M.D., Charlottesville, Va.
Charles Dennison, M.D., Denver, Col.
W. E. Duncan, M.D., Ellendale, Dakota Ter.
J. W. Dupree, M.D., Baton Rouge, La.
Ellsworth Eliot, M.D., New York City.
*G. J. Engelmann, M.D., St. Louis, Mo.
N. F. Essig, M.D., Plattsburg, Mo.
*Austin Flint, M.D., LL.D., New York City.
E. P. Frazer, M.D., Portland, Oregon.
George F. French, M.D., Minneapolis, Minn.
A. Y. P. Garnett, M.D., Washington, D. C.
S. C. Gordon, M.D., Portland, Me.
J. W. S. Gouley, M.D., New York City.
F. M. Gunnell, M.D., U. S. Navy, Washington, D. C.
John B. Hamilton, M.D., U. S. Marine Hospital Service, Washington, D. C.
*I. M. Hays, M.D., Philadelphia, Pa.
*C. Johnston, M.D., Baltimore, Md.
George A. Ketchum, M.D., Mobile, Ala.
R. A. Kinloch, M.D., Charleston, S. Ca.
D. A. Linthicum, M.D., Helena, Ark.
John S. Lynch, M.D., Baltimore, Md.
J. J. McAchran, M.D., Laramie City, Wyom. Ter.
J. W. McLaughlin, M.D., Austin, Texas.
R. C. Moore, M.D., Omaha, Neb.
Robert Murray, M.D., U. S. Army, Washington, D. C.
R. D. Murray, M.D., Moultrie, Fla.
J. W. Parsons, M.D., Portsmouth, N. H.
William Pierson, M.D., Orange, N. J.
N. J. Pitman, M.D., Tarboro, N. Ca.
*L. A. Sayre, M.D., New York City.
X. C. Scott, M.D., Cleveland, O.
*Nicholas Senn, M.D, Milwaukee, Wis.
John V. Shoemaker, M.D., Philadelphia, Pa.
F. L. Sim, M.D., Memphis, Tenn.
A. R. Smart, M.D., Hudson, Mich.
D. W. Stormont, M.D., Topeka, Kan.
J. M. Taylor, M.D., Corinth, Miss.
E. F. Upham, M.D., West Randolph, Vt.
W. H. Wathen, M. D., Louisville, Ky.
W. Watson, M. D., Dubuque, Iowa.
W. C. Wile, M.D., Sandy Hook, Conn.
A. H. Wilson, M.D., Boston, Mass.

At an informal meeting of the Committee, held at New Orleans during the session of the American Medical Association, in April, 1885, Dr. R. Beverly Cole, of San Francisco, Cal., was elected temporary Chairman, and Dr. John V. Shoemaker, of Philadelphia, Pa., was elected temporary Secretary.

The Committee held its first regular meeting at Chicago, Ill., on June 24th and June 25th, 1885, for the purposes of organization and the transaction of the business committed to it by the American Medical Association.

In order to facilitate the holding of meetings in different sections of the country, the Committee deemed it advisable to select a Vice-Chairman, in addition to a Chairman and a Secretary.

The following named members were present at the meeting held in Chicago:

G. Baird, M.D., Wheeling, W. Va.
Robert Battey, M.D., Rome, Ga.
F. W. Beard, M.D., Vincennes, Ind.
*J. S. Billings, M.D., Washington, D. C.
R. Beverly Cole, M.D., San Francisco, Cal.
E. P. Cook, M.D., Mendota, Ill.
W. E. Duncan, M.D., Ellendale, Dakota Ter.
Ellsworth Eliot, M.D., New York City.
N. F. Essig, M.D., Plattsburg, Mo.
G. F. French, M.D., Minneapolis, Minn.
A. Y. P. Garnett, M.D., Washington, D. C.
John B. Hamilton, M.D., Washington, D. C.
*I. M. Hays, M.D., Philadelphia, Pa.
George A. Ketchum, M.D., Mobile, Ala.
D. A. Linthicum, M.D., Helena, Ark.
John L. Lynch, M.D., Baltimore Md.
J. W. McLaughlin, M.D., Austin, Texas.
X. C. Scott, M.D., Cleveland, O.
*Nicholas Senn, M.D., Milwaukee, Wis.
John V. Shoemaker, M.D., Philadelphia, Pa.
F. L. Sim, M.D., Memphis, Tenn.
A. R. Smart, M.D., Hudson, Mich.
D. W. Stormont, M.D., Topeka, Kan.
E. F. Upham, M.D., West Randolph, N. Y.
W. H. Wathen, M.D., Louisville, Ky.
W. Watson, M.D., Dubuque, Iowa.
A. H. Wilson, M.D., Boston, Mass.

The resignation of Dr. Austin Flint, of New York, as a member of the Committee, was presented and accepted. Dr. J. W. S. Gouley, of New York, was elected to fill the vacancy, and took his seat with the Committee.

The Committee then organized, a majority of its members being present, by the election of the following officers:

Chairman, Dr. R. Beverly Cole, San Francisco, Cal.
Vice-Chairman, Dr. John S. Lynch, Baltimore, Md.
Secretary, Dr. John V. Shoemaker, Philadelphia, Pa.

After the organization of the Committee, the number of members necessary for a quorum for future meetings was fixed at fifteen.

The following preamble and resolution were adopted, to apply to future meetings of the Committee.

"*Whereas.*—It is expedient that the meetings of this Committee shall represent, as far as practicable, the profession of all portions of our country.

"*Resolved.*—That any member of this Committee who may be unable to attend a meeting, shall be empowered to send as his proxy for the meeting any member of the American Medical Association, in good professional standing and a resident of his State or a member of his Government Department."

In the course of the meeting in Chicago, on June 24th, and 25th, 1885, a plan of organization of the Congress was adopted, certain officers of the Congress were appointed, in accordance with the instruc-

*Resigned.

*Resigned.

tions received from the American Medical Association, and the Committee adjourned.

The revised rules for the organization of the Congress and a revised list of officers will be presented with this report.

In August, 1885, the Chairman, the Vice-Chairman, and the Secretary, after consultation and communication with members, called a meeting of the Committee, to be held in New York City, September 3d, 1885, for the purposes of revision of the rules and the filling of certain vacancies in the list of officers of the Congress.

The Committee met in New York City, September 3d, 1885, the following named members being present.

Dr. G. Baird.
" Robert Battey.
" L. P. Bush.
" R. Beverly Cole.
" W. C. Dabney.
" Ellsworth Eliot.
" A. Y. P. Garnett.
" S. C. Gordon.
" J. W. S. Gouley.
" J. B. Hamilton.
" George A. Ketchum.
" R. A. Kinloch.
" D. A. Linthicum.
Dr. John S Lynch.
" R. C. Moore.
" Willlam Pierson.
" N. J. Pitman.
" L. A. Sayre.
" X. C. Scott.
" John V. Shoemaker.
" F. L. Sim.
" E. F. Upham.
" W. H. Wathen.
" W. C. Wile.
" A. H. Wilson

The following named members were represented by proxies:

Dr. E. P. Cook, by Dr. N. S. Davis, proxy.
Dr. A. R. Smart, by Dr. William Brodie, proxy.
Dr. J. M. Taylor, by Dr. E. P. Sale, proxy.

The Committee was called to order at 12 M., September 3d, 1885, by the Chairman, Dr. R. Beverly Cole.

The resignation of Dr. L. A. Sayre, of New York, as member of the Committee, was received and accepted, and Dr. A. Flint, Jr., of New York, was elected to fill the vacancy and took his seat with the Committee. The resignation of Dr. Sayre was caused solely by ill health.

The following "Rules" were unanimously adopted:

RULES.

1. The Congress shall consist of members of the regular profession of medicine, and of such other scientific men as the Executive Committee of the Congress may see fit to admit, who shall have inscribed their names on the register and shall have taken out their tickets of admission.

2. The dues for members of the Congress shall be ten dollars each for members residing in the United States.

There shall be no dues for members residing in foreign countries.

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887.

3. The Congress shall be divided as follows, into seventeen Sections:

I. General Medicine.
II. General Surgery.
III. Military and Naval Surgery.
IV. Obstetrics.
V. Gynæcology.
VI. Therapeutics and Materia Medica.
VII. Anatomy.
VIII. Physiology.
IX. Pathology.
X. Diseases of Children.
XI. Ophthalmology.
XII. Otology and Laryngology.
XIII. Dermatology and Syphilis.
XIV. Public and International Hygiene.
XV. Collective Investigation, Nomenclature, Vital Statistics, and Climatology.
XVI. Psychological Medicine and Diseases of the Nervous System.
XVII. Dental and Oral Surgery.

4. The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest.

5. Questions and topics that have been agreed upon for discussion in the Sections shall be introduced by members previously designated by the titular Officers of each Section. Members who shall have been appointed to open discussions shall present in advance statements of the conclusions which they have formed as a basis for debate.

6. Brief abstracts of papers to be read in the Sections shall be sent to the Secretaries of the proper Sections on or before April 30, 1887. These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress.

Papers relating to topics not included in the lists of subjects proposed by the Officers of the Sections may be accepted after April 30, 1887; and any member wishing to introduce a topic not on the regular lists of subjects for discussion shall give notice of the same to the Secretary-General, at least twenty-one days before the opening of the Congress, and such notices shall be promptly transmitted by the Secretary-General to the Presidents of the proper Sections. The titular officers of each Section shall decide as to the acceptance of such proposed communications and the time for their presentation.

7. All formal addresses, scientific communications and papers presented, and scientific discussions held at the General Meetings of the Congress, shall be promptly given in writing to the Secretary-General; and all papers presented and discussions held at the meetings of the Sections shall be promptly given in writing to the Secretaries of the proper Sections.

No communication shall be received which has already been published, or read before a society.

The Executive Committee, after the final adjournment of the Congress, shall direct the editing and the publication of its "Transactions," and shall have full power to publish the papers presented and the discussions held thereon, either in full, in part, or in abstract, as in the judgment of the Committee may be deemed best.

8. The official languages of the Congress shall be English, French, and German.

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those

who introduce subjects for discussion, who may each occupy twenty minutes.

9. The rules and programmes shall be published in English, French, and German.

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered.

All discussions shall be printed in English.

10. The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections. This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty. A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business.

11. The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee.

12. The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council.

13. The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session.

14. The Executive Committee shall, at some convenient time before the meeting of the Congress, prepare a list of foreign Vice-Presidents of the Congress and foreign Vice-Presidents of the Sections, to be nominated to the Congress at the opening of its first session.

15. There shall be a standing Committee on Finance, composed of one representative from each State and Territory, the District of Columbia, the Medical Department of the Army, the Medical Department of the Navy, and the Marine Hospital Service.

The Chairman of the Finance Committee shall report to the Executive Committee of the Congress.

Each member of the Finance Committee shall appoint a local Finance Committee for his State, Territory, District, or Government Department, consisting of one or more members from each Government Department or Congressional District.

Each local Finance Committee shall report through its Chairman to the Chairman of the Finance Committee of the Congress.

Dr. S. C. Gordon, of Maine, recalled his withdrawal from the Congress, which action was accepted by the Committee.

The following named gentlemen were elected to fill vacancies in the Committee of Arrangements:

Dr. J. K. Bartlett, Wisconsin.
Dr. J. H. Baxter, U. S. Army.
Dr. George Goodfellow, Arizona.
Dr. Henry Leffman, Pennsylvania.
Dr. John Morris, Maryland.
Dr. J. R. Tipton, New Mexico.
Dr. Thomas J. Turner, U. S. Navy.

The following resolution was adopted:

Resolved, That the representative or representatives in this Committee from each State, Territory, or Government Department, shall organize the Financial Committees in their respective States, Territories, or Government Departments.

It was decided that no person should occupy more than one position in the organization of the Congress.

It was also decided that, in the published lists of the Officers of the Congress, the names of the Vice-Presidents and Secretaries of the Congress, and the Vice-Presidents, Secretaries and members of Councils of the Sections, should be arranged alphabetically.

OFFICERS OF THE CONGRESS.

PRESIDENT.

Austin Flint, M.D., LL.D., New York.

VICE-PRESIDENTS.

W. O. Baldwin, M.D., Alabama.
H. I. Bowditch, M.D., Massachusetts.
William Brodie, M.D., Michigan.
Henry F. Campbell, M.D., Georgia.
W. W. Dawson, M.D., Ohio.
R. Palmer Howard, M.D., Canada.
E. M. Moore, M.D., New York.
Tobias G. Richardson, M.D., Louisiana.
Lewis A. Sayre, M.D., New York.
J. M. Toner, M.D., District of Columbia.
The President of the American Medical Association.
The Surgeon-General of the United States Army.
The Surgeon-General of the United States Navy.
The Supervising Surgeon-General of the United States Marine Hospital Service.

SECRETARY-GENERAL.

Nathan S. Davis, M.D., LL.D., Illinois.

TREASURER.

E. S. F. Arnold, M.D., M.R.C.S., New York.

CHAIRMAN OF THE FINANCE COMMITTEE.

Frederick S. Dennis, M.D., M.R.C.S., New York.

EXECUTIVE COMMITTEE OF THE CONGRESS.

Austin Flint, M.D., LL.D., President of the Congress.
Nathan S. Davis, M.D., LL.D., Secretary-General.
E. S. F. Arnold, M.D., M.R.C.S., Treasurer.
Frederick S. Dennis, M.D., M.R.C.S., Chairman of the Finance Committee.

PRESIDENTS OF THE SECTIONS.

A. B. Arnold, M.D., General Medicine.
William T. Briggs, M.D., General Surgery.
Henry F. Smith, M.D., Military and Naval Surgery.
DeLaskie Miller, M.D., Obstetrics.
Robert Battey, M.D., Gynæcology.
F. H. Tirrell, M.D., Therapeutics and Materia Medica.

William H. Pancost, M.D., Anatomy.
John C. Dalton, M.D., Physiology.
E. O. Shakespeare, M.D., Pathology.
J. Lewis Smith, M.D., Diseases of Children.
A. W. Calhoun, M.D., Ophthalmology.
S. J. Jones, M.D., Otology and Laryngology.
A. R. Robinson, M.D., Dermatology and Syphilis.
Joseph Jones, M.D., Public and International Hygiene.
Henry O. Marcy, M.D., Collective Investigation, Vital Statistics and Climatology.
John P. Gray, M.D., LL.D., Psychological Medicine.
Jonathan Tafft, M.D., Dental and Oral Surgery.

LOCAL COMMITTEE OF ARRANGEMENTS.
(With power to increase their number.)

A. Y. P. Garnett, M.D., Chairman, District of Columbia.
The Surgeon-General U. S. Army.
The Surgeon-General U. S. Navy.
The Supervising Surgeon-General U. S. Marine Hospital Service.
J. H. Baxter, M.D., District of Columbia.
C. H. A. Kleinschmidt, M.D. District of Columbia.
N. S. Lincoln, M.D., District of Columbia.
J. M. Toner, M.D., District of Columbia,
and such additional members of the profession in the District of Columbia as the Executive Committee of the Congress may select.

Lists of Vice-Presidents, Secretaries, and Councilmen for each Section were named by the Committee of Arrangements, but as it was not practicable to ascertain at once who would accept the places assigned them, or who of those who had been announced in the medical press as declining to accept positions before the present rules and organization had been adopted, as given heretofore, might wish to withdraw such declination, the final adjustment of these offices was referred to the Executive Committee of the Congress, and all correspondence in relation thereto was transferred to the Secretary-General of the Congress.

On motion, the Committee of Arrangements adjourned, subject to the call of the Chairman of the Committee.

JOHN V. SHOEMAKER,
Secretary of the Committee of Arrangements.

SOCIETY PROCEEDINGS.

AMERICAN DERMATOLOGICAL ASSOCIATION.

(*Concluded from page 684.*)

WEDNESDAY, AUGUST 26—EVENING SESSION.

Dr. J. NEVINS HYDE, of Chicago, read a paper on

THE RELATIONS OF LUPUS VULGARIS TO TUBERCULOSIS.

He began with a detailed statement of all the cases of lupus reported to the Statistical Committee of the American Dermatological Association during the last seven years, and compared the frequency of the disease in this country with that reported in the Vienna Hospitals. He then gave details of twenty consecutive cases observed by him in Chicago. The clinical deductions from these records were then added, showing, according to the author, that there was a remarkable absence of pulmonary tuberculosis, scrofula and allied diseases in the family histories of the last twenty cases reported.

The teachings of the two schools, represented in the past by prominent German and French authors were then referred to, and finally the later investigations demonstrating that lupus vulgaris was the result of bacillus infection, not to be differentiated in external appearance of the parasite from the bacillus tuberculosis.

The following clinical facts were then cited in support of the later teaching of this subject as bearing on the vital point in the author's argument, viz., that lupus vulgaris was not the result as had long been taught of tuberculosis or other systemic diathesis, but was the product of a local infection by bacilli, entirely unassociated with any constitutional evidence of diathesis or predisposition. 1. The unimpeachable character of the family record in by far the larger number of cases of lupus vulgaris. 2. The fact that the disease is in its inception a disorder of the period of childhood, when for the most part, the habits of the child are favorable to infection. 3. The several sites of predilection are those most favorable to such infection. 4. The failure of the disease to spread by inheritance. 5. The remarkable tendency of lupus vulgaris to cutaneous limitation.

DR. J. C. WHITE, of Boston, read a paper on

THE TREATMENT OF LUPUS BY PARASITICIDES.

He briefly reviewed the evidence in favor of the parasitic nature of the affection. All previous plans of treatment which had proved most successful, were those which would have the effect of destroying any parasite which might be present.

A number of cases were then reported in which the local use of corrosive sublimate in the strength of two grains to the ounce of water or unguent had been used with beneficial results. The ointment was especially recommended. It had been rarely necessary to prolong treatment over two months. As regards the permancy of the cure, the author was unable to speak, as the experiments had been continued for only eighteen months.

DR. S. SHERWELL, of Brooklyn, expressed his profound disbelief in the parasitic nature of the disease, and did not think that the theories of Koch had been entirely proved. It seemed to him that lupus and the scrofulous diatheses represent some form of syphilitic hereditary influence.

DR. S. WIGGLESWORTH, of Boston, suggested that the oleates might be more efficient than ointments, on account of their penetrating power.

Dr. HYDE said that at the last meeting of the Association, Dr. Taylor suggested the use of a solution of corrosive sublimate in tincture of benzoin. He had used this in cases of lupus and in cases of infecting chancre. It makes an excellent application.

Dr. W. A. Hardaway then read a paper on

THE TREATMENT OF PORT-WINE MARKS BY ELECTROLYSIS.

In the treatment of this affection, the object is to excite sufficient inflammation to cause occlusion of the vessels. Electrolysis seems to be the most convenient way of doing this. At first the speaker had used a bundle of needles, but he now employed only the single needle. It is important to allow a period of some weeks to elapse between the applications. The histories of three cases were given in which this method had been employed.

Dr. J. C. White had used this method in one case, and had obtained considerable improvement.

Dr. Fox thought that all admitted that spider cancers and telengiectasis are amenable to treatment of different kinds, but when we come to port wine marks, a difference is found. Better results can be obtained by electrolysis than by other measures, but it does not remove the trouble entirely. He had sometimes passed the electrolytic needle deeply, endeavored to strike the artery of supply, and sometimes had produced a decided effect.

Dr. Denslow recently had seen a case of port wine mark on the labia majora of an infant. This had ulcerated when the child was brought to him. As a temporary measure, he applied the liquor guttapercha. In two days, without other treatment, the whole mark sloughed out, leaving nothing but a simple ulcer, which completely healed in the course of three weeks.

Dr. Hardaway said that the advantage of the electrolysis is that it is manageable. A practical point might be referred to, and that is, if after the operation the part be frequently mopped with hot water, the inflammatory disturbance will be greatly lessened.

Dr. S. Sherwell, of Brooklyn, then read some

REMARKS ON A MOOT POINT IN THE ETIOLOGY OF PSORIASIS.

He said that he had been struck by the great diversity of opinion in regard to the general health of those affected with psoriasis, and in order to arrive at something like a consensus of opinion on the subject, he had referred to the writings of most of the authorities in dermatological matters. Brief extracts from various writers were then given. The evidence thus obtained, strengthened the Doctor's opinion that the patients with psoriasis were generally in good health. He thought that the theory of Piffard, who believes that the rheumatic diathesis is a great exciting cause of psoriasis, was the most rational theory that had been advanced.

THURSDAY, AUGUST 27—SECOND DAY.

At the business meeting the following were elected

OFFICERS FOR THE ENSUING YEAR.

President—Dr. E. Wigglesworth, of Boston, Mass.

Vice-Presidents—Dr. I. E. Atkinson, of Baltimore, Md., and Dr. A. R. Robinson, of New York, N. Y.

Secretary—Dr. G. H. Tilden, of Boston, Mass.

Treasurer—Dr. H. W. Stelwagon, of Philadelphia.

Dr. E. B. Bronson, of New York, was elected to membership.

The next meeting will be held at Indian Harbor Hotel, Greenwich, Ct., the last Wednesday of August, 1886.

Dr. G. H. Fox briefly described

TWO CASES OF DYSODROSIS.

The first patient, for want of a better term, he classed under this heading. The patient was twenty-nine years of age, and had always perspired freely. Four years ago the eruption began on the palms of the hand and had persisted. The soles of the feet had also been affected at one time. The skin of the hands was decidedly thick and had a dark hue, and was dotted with numerous elevations of epidermis, averaging in size that of a hemp seed. The patient had never seen any moisture in connection with this. There had been no itching. The skin never peeled off. Puncture with a needle revealed no serum or fluid of any kind.

The second case was that of a woman aged 45, a cook, whose general health was good. The present trouble began five years ago. The eruption is on the face, and consists of numerous large and small vesicles containing clear fluid.

Dr. Robinson said that these latter cases are not infrequent, and may persist for months and years. They consist of obstruction of the sweat duct in the corium. They never cause inflammation around them, although sometimes they may be surrounded by a little areola as the result of pressure. The symptoms which they present do not at all correspond to those of dysodrosis as described by Hutchinson and Tilbury Fox, as belonging to dysodrosis of the palms.

Dr. A. R. Robinson, of New York, reported some

MYCOLOGICAL STUDIES IN TINEA FAVOSA AND TINEA TRICHOPHYTINA.

The epidermis of different persons differs in susceptibility to these parasites. Children are more apt to suffer with tinea trichophytina and favus, while adults more frequently presented tinea versicolor. All children are not equally susceptible. In many cases of parasitic disease there is impaired vitality previous to the development of the affection.

The reader then gave an account of his investigations to determine the exact anatomical seat of the parasitic diseases in question, and to determine the changes which they produced in surrounding tissues.

The conclusion was that in favus the rete is not affected until the later stages, when ulceration had made its appearance. The parasite confines itself more particularly to the corneous layer. The parasite of tinea trichophytina in some cases passes down into the rete, while in others it does not.

A number of sections were shown under the microscope, which illustrated the points brought out in the paper.

Dr. White asked the reader what evidence he had that in ringworm and favus a decreased vitality was necessary?

Dr. Robinson thought the fact that it was exceedingly difficult to cure these affections occurring in

broken down subjects, until the general health is improved, proved this point.

DR. WHITE said he could not agree with the speaker in the importance of depressed general health as a factor in the production of these diseases. He had never seen any necessity for internal treatment in these cases. Where the disease is superficial, it is readily removed; but where it involves skin covered with skin, it is difficult to cure. Although he thought the improvement of the general condition has nothing to do with the cure of the parasitic trouble, yet it is of service in the restoration of the parts to their natural condition after the parasite has been destroyed.

DR. PIFFARD agreed with Dr. Robinson that there is a relation between the condition of the general system and the rapidity of development and the rapidity of cure.

DR. DUHRING had always held the view that a particular condition of the epidermis was necessary for the growth of the fungus. In the majority of cases of obstinate ringworm that he had seen, had been in individuals in poor health, but there are exceptions to this rule. What this peculiar condition of the skin is, has not been determined.

DR. HEITZMAN agreed with Dr. White. He had seen strong, healthy persons covered from head to foot with tinea.

DR. DENSLOW had recently seen a large number of cases of ringworm of the head and beard, but all the patients were well developed, muscular subjects. These were cured without internal treatment.

DR. CHARLES HEITZMAN, of New York, then read a paper on

THE STRUCTURE OF THE DERMA AND THE DEVELOPMENT OF ELASTIC TISSUE IN IT.

He called attention to the fact that Prof. Stricker, of Vienna, the acknowledged best microscopist of Europe, has now accepted his views concerning the life of basis-substance. Dr. Gartner (who was present at the meeting), Stricker's assistant, has brought from Europe an electric picture microscope, by means of which these newly discovered facts can easily be demonstrated upon a screen to a large audience. There are three varieties of basis structure, differing from each other in their chemical constituents, viz: The glue-yielding basis substance proper, producing the spindles within the bundles of so-called fibrous connective tissue; the cement substance between the spindles; and the elastic substance developing along the edge of the bundles in advancing age and in some tumors. All three varieties are traversed by a delicate reticulum of living matter, in connection with the protoplasmic cords that fill the interstices between the bundles in the shape of a comparatively coarse reticulum. Thus it becomes intelligible that in morbid processes, not only the protoplasm, but also the basis substance, participates in an active manner. After the liquifaction of the solid fields of glue-yielding basis substance, the bundles directly are transformed into inflammatory corpuscles, from which starts every physiological and pathological new formation.

DR. W. A. HARDAWAY described

A CASE OF MULTIPLE MYOMATA OF THE SKIN, ACCOMPANIED WITH SEVERE PAIN.

A. B., æt. 36, married, with healthy children and good family history. Never had syphilis. Present trouble began a year ago. Changes in weather produced pains in the parts which have since become affected. To relieve these firm pressure was made with the hand. Between the paroxysms pain was not produced by pressure. Later the lesions presented themselves.

Present Condition.—A strong, hearty man, a peddler by occupation. The pains still persist, recurring at intervals of one night to a week. Each attack lasts two or three minutes, and does not return the same night. The growth is situated on the right side of the back, in the mid-dorsal region, and the course of the growths is obliquely outwards. There are one or two of the elevations on the left side; three of the growths are as large as peas; others are small. The epidermis is not abnormal. On passing the hand over these growths there is no hyperæsthesia, but on deep pressure in the neighborhood of the larger masses the patient sinks moaning to the floor. One of the larger growths was removed, and microscopical examination showed it to be composed of smooth muscular fibre.

From a clinical standpoint, the case bears a close relation to the cases of neuroma which have been reported. The speaker concluded that certain new growths in the skin, accompanied with severe pain, may be widely different histological structures. We are not justified in assuming that a painful tumor of the skin is a neuroma or fibro-neuroma simply from its clinical history, without a microscopical examination.

DR. DUHRING said it would be difficult to differentiate, from the local appearances, the case described by Dr. Hardaway, and that which he reported some years ago. It is not possible from a clinical standpoint, as has been said, to differentiate these growths, and it was necessary to rely on the microscope. There is one point, and that is in the case just described; no pain was produced by superficial manipulation, while in his case the pain was intense on the slightest touch, while firm pressure decreased the pain.

DR. R. B. MORRISON, of Baltimore, reported

AN UNUSUAL CASE OF TYLOSIS OF THE HANDS.

The patient was a negro, aged 32, muscular, well-developed, and apparently healthy. By occupation he was a fireman of a steamer, and had occupied this position for ten years, shoveling coal with the right hand grasping the upper portion of the shovel, and the left hand sliding up and down the handle. Two fingers of the left hand are worn off to the second joint, while the other two are going in the same way, the nails having nearly disappeared. On several occasions he has drawn pieces of bone from the fingers. There has been no pain at all connected with the affection. On this hand there are some large blisters, underneath which there are red granu-

lating surfaces, which are painless. There is no history nor evidence of syphilis. Specific treatment has been used without effect. The man obstinately refuses to give up his work, so that little could be done in the way of treatment.

DR. TILDEN thought there was a good deal of resemblance between this case and the cases of perforating ulcer of the foot, and this would lead to suspect a nervous element,

DR. MORRISON had been led to consider it a strictly local affection, from the fact that the hand which was most exposed to rubbing and to the heat of the furnace, was the one most affected.

DR. DUHRING would be inclined to consider the callosities a secondary condition. The occupation probably had something to do with the aggravation of the disease, but if the occupation had been different there would probably have been a similar change. He would regard it as dependent on some deep change in connection with the nerves similar to that which occurs in perforating ulcer of the foot.

DR. MORRISON thought that as an affection of the nerve in the first place, he could hardly admit. It may be that the continued congestion of the skin, dependent on his occupation, produced changes in the nerves or other part, which culminated in this affection. In referring to the literature of the subject, he had found similar cases attributed to mechanical irritation.

EVENING SESSION.

DR. L. A. DUHRING read a paper on

THE RELATION OF HERPES GESTATIONIS AND CERTAIN OTHER FORMS OF DISEASE TO DERMATITIS HERPETIFORMIS.

Attention was briefly directed to the previous articles of the reader on dermatitis herpetiformis, and to a paper showing its identity with the impetigo herpetiformis of Hebra; also to a preliminary note on the relation of this disease to herpes gestationis and other similar forms of cutaneous disease, read before the Association at the last meeting.

The object of the present communication was to prove the identity of so-called herpes gestationis with the vesicular variety of dermatitis herpetiformis, and to show that the term herpes gestationis was a misnomer, the affection being found in men as well as in women. Secondly, that certain other so-called forms of herpes, such as "herpes pemphigoide," "herpes vegetans," "herpes pyæmicus," etc., as well as certain cases regarded by the reporters as "peculiar forms of pemphigus," must be viewed as examples of this disease; and finally, that instances of the same affection were also met with in literature under the title of hydroa and under divers other captions. Numerous cases from English, French and German literature were cited. The paper of Dr. Duhring was stated to be looked upon as supplementary to the preliminary note referred to, and embodied the results of considerable research into literature. If the views put forth proved to be correct, a great deal had been gained for dermatology in bringing these peculiar forms of disease together.

DR. J. C. WHITE considered the term dermatitis herpetiformis a misnomer. The disease should be called dermatitis multiformis. The herpetic element is often wanting.

DR. A. R. ROBINSON agreed with Dr. White that the term dermatitis herpetiformis is too restricted, but he would prefer some term which does not indicate the pathology, until the disease is better understood.

DR. J. NEVINS HYDE thought the term dermatitis herpetiformis is preferable, if for no other reason, because it is suggestive.

DR. G. H. FOX showed here a photograph of a case of erythema multiformis, which might be mistaken for dermatitis herpetiformis. This disease shoule be placed in strong contrast with dermatitis herpetiformis.

DR. DUHRING said the name dermatitis herpetiformis was adopted because it seemed the least objectionable. The herpetiform character of the disease was characteristic. The term dermatitis multiformis is already employed to designate a form of skin trouble.

DR. G. H. TILDEN, of Boston, read a paper on

MYCOSIS FONGOÏDE.

He described the case of a man, aged 28 years when he came under observation. Three years before, several red, desquamating spots had been observed on the elbows. Several months later, erythematous spots accompanied with pruritus were noted. These lesions retained a dry, scaly character. There were no vesicles or pustules. At the end of a year, several red nodules appeared on the face and throat. These, however, disappeared. Later, a small papule appeared on the right thigh and increased in size. From this there exuded a thin fluid. This was followed by the development in many parts of the body, particularly the axillæ, groins and neck, of similar lesions, in some cases reaching the size of a hen's egg. After a time there was superficial erosion of some of the tumors, but these excoriated tumors remained firm in consistence. But some of the masses which were covered with epidermis were soft, but there was no evidence of the formation of pus. There was also indolent enlargement of the lymphatic glands. The general health continued good. The patient passed from observation and died at the end of three years and a half.

The report of the microscopist who examined the tumors was read. His opinion was that the growths consisted of the formation of lymph tissue in corium.

Reference was then made to the literature of the subject and the various cases, some 30 in number, which had been reported, were given, and the symptoms and course of the disease described. Sections of the growth were also presented for examination.

DR. WHITE said that this patient was under his care during the last stages of the disease, and he presented the changes which had been described. Some of the larger growths disappeared. During the last months of his life the man was taking arsenic. Death resulted from the occurrence of diarrhœa.

DR. G. H. ROHÉ had seen a case four years ago

of what he thought was the same affection. The man, 62 years of age, had a multitude of these tumors. Several had been extirpated before he came under observation, but there was recurrence with this fungoid appearance. The man was given arsenic, but he died from exhaustion. No autopsy could be obtained. As far as could be detected, there was no affection of the liver or spleen.

DR. MORRISON had seen a similar case which was diagnosed multiple sarcoma of the skin. It takes the microscope to settle the question in these cases.

DR. FOX had seen one or two similar cases in New York. He suggested the use of calamooga oil. Judging from its effects in other cases, it should be useful.

DR. HARDAWAY said that in a case of alveolar sarcoma, which he had reported, the disease had existed fifteen years, but the clinical features were about the same as they were years ago. There is marked enlargement of the lymphatic glands. The general condition is good.

DR. HEITZMAN, said that the description of the microscopic appearance is that of a lympho-sarcoma, and the examination of the specimen confirmed him in the view that this was a case of lympho-sarcoma.

DR. S. SHERWELL, to show the amount of involution that may take place, referred to a case of melano-sarcoma under his care. The man was treated with arsenic, mercurials, etc. After six months treatment, the tumors almost disappeared. There was not the slightest evidence of syphilis.

DR. FOX said in regard to the use of calamooga oil, that he had seen it used in a case of leprosy, and there was now not a trace of leprosy, except the contraction of the fingers which is, however, a secondary condition. It has failed in many cases, but there is sufficient to justify a trial of it in the chronic inflammatory affections referred to.

DR. L. N. DENSLOW, of St Paul, read a paper on

URETHRAL IRRITATION IN THE MALE AS A CAUSE OF CERTAIN NEUROSES AND OF ACNE.

He prefaced his remarks by a brief review of the cases of contracted meatus reported by Dr. Otis. He than gave an account of a number of cases coming under his observation, in which there were reflex conditions associated with conditions of the uretha, such as contracted meatus, stricture and excessive sensitiveness of the prostatic urethra. In these cases removal of the urethral trouble produced an aleviation or cure of the affection to which attention had been directed. He also reported four cases of severe acne in which the same treatment had been followed by marked improvement or cure of the skin disease. In some of the cases ergotine was also employed. The speaker said that he simply reported the cases as so many observed facts, and did not express any theory. He would keep the cases under observation and at a subsequent meeting give a further report.

DR. WHITE had employed ergot in obstinate cases, without seeing the least benefit from its use.

DR. TAYLOR objected to this promiscuous cutting of urethras which is so common at present.

DR. SHERWELL believed that acne is largely a reflex disorder, but he was not in the habit of introducing a sound in every case of acne. It is valuable in severe cases. He believed in the action of ergot in connection with local applications, especially in females.

DR. HYDE said, that many of these cases with urethral trouble associated with acne, are patients who probably have been taking for some time, balsamic preparations, and as a result they have the development of acne.

DR. DENSLOW said, that in all the cases reported, the acne had existed since puberty. The patients were not hypochondriacs, and they were not masturbators. He was satisfied that no drugs had been used in any of them.

(To be concluded.)

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

The Cancer Hospital—The Skin and Cancer Hospital—Deaths from Cancer in the past Decade—A Case of Yellow Fever—Death of Mr. David Colden Murray.

The first annual report of the New York Cancer Hospital, which has recently been published, contains a beautiful representation of its very handsome and commodious buildings, now in course of erection on Eighth Avenue, opposite Central Park, between 105th and 106th Sts. It was from discussions in the Woman's Hospital in this city that the scheme for the new institution originated. The result of these discussions was an offer from Mr. John Jacob Astor (his name not being mentioned) of a fund for the erection of a pavilion on the grounds of the Woman's Hospital for the treatment of cancer patients. The acceptance of that offer was under consideration by the Woman's Hospital for nearly a year, when it was deemed unwise to carry out the project. In the meantime, the late Mrs. General Cullum, a lady of large means, with some others coöperating with her, in ignorance that it was Mr. Astor who had made the offer to the Woman's Hospital, had been considering the independent organization of a cancer hospital. The outcome of the matter was a conference between Mrs. Cullum, on behalf of herself and those who were acting with her, and the friends of Mr Astor whom he had asked to coöperate with him; and eventually the transfer by Mr. Astor of his offer to a separate hospital, to be organized for the exclusive treatment of cancer. Up to the present time, the report states, the new hospital has received in money in all $308,572, a part of which is appropriated as a free-bed fund. In addition to this, by the will of Mrs. Cullum there are devised to the hospital lots belonging to her of the assumed value of $35,000, and a valuable property in San Francisco which is not immediately available.

This is certainly an excellent showing for so youthful an institution; but at the same time it is greatly to be regretted that its founders and managers should

have directed all their energy towards the organization of an independent cancer hospital, when there had already been in successful operation in the city for three or four years an institution devoted to exactly the same ends. This was the New York Skin and Cancer Hospital, towards the support of which the great annual "Kirmess" at the Metropolitan Opera House always brings in such a handsome sum. It is true that at this hospital diseases of the skin, as well as cancer, are treated, but it must not be forgotten that at such an institution the vast mass of those suffering from skin affections are out-patients. Very few of these ever become in-patients; so that the wards are devoted almost exclusively to those affected with cancer. Practically, therefore, all the advantages claimed for the newer institution in affording the best facilities for the most approved methods of treatment of cancer cases are to be met with at the older one already in active operation.

For some years the New York Skin and Cancer Hospital has had a building on 34th St. with a limited number of beds for in-patients, and during the past eighteen months the institution has purchased quite a large and very desirable tract of land a short distance out of town, on which it is proposed to erect buildings which will offer ample accommodations for all suitable cases which may apply for admission. The only thing which prevents the immediate carrying out of the plans of its managers is the lack of the necessary funds, and it is melancholy to reflect that if the friends of the New York Cancer Hospital, instead of attempting to found a second institution of the same character, had given their generous donations to the one already organized, we should have had by the present, time or in the immediate future, a cancer hospital of which New York might well have been proud, and which would at once have been of more practical benefit to the community than will probably be possible in the case of either of these institutions for many years to come. Instead of this, both of them are much crippled for want of means. The older organization has not yet accumulated a sufficient fund to build, and the newer one, while it has one admirable building nearly completed, is as yet without the means necessary to open it successfully. From the report referred to we learn that preparatory to opening there must be an engine-house with its equipment and accessories; furniture must be provided and the grounds must be put in order; while the money to do this is still lacking. Furthermore, as the building now in process of erection is exclusively for females, there must be another for males, and a chapel building is also contemplated. It is said that when the authorities of the New York Skin and Cancer Hospital first learned of the plan to start another cancer hospital, they did all in their power to induce the founders of the latter to join forces with them, offering them a liberal share in the management, etc.; but their proposition was rejected, and consequently we see the present unfortunate waste of energies resulting.

While on the subject of cancer hospitals, it may be of interest to know that Dr. John T. Nagle, of the Bureau of Vital Statistics, has lately prepared from the records at the Health Department a table of the deaths from cancer during the past ten years. From this it appears that in 1874 there were 416 deaths from this cause, of which 3 were from cancer of the throat, 4 from cancer of the tongue, and 7 from cancer of the mouth; while in 1884 there were 725 deaths from cancer, of which 9 were from cancer of the throat, 1 from cancer of the tongue, and 9 from cancer of the mouth. The total number of deaths from cancer in the last ten years was 6,012; of which 47 were from cancer of the throat, 17 from cancer of the tongue, and 82 from cancer of the mouth.

A fatal case of yellow fever has recently occurred in this city, the patient being a stow-away who arrived on a vessel from Cuba. The bark John Gibson, on which he came, was passed through quarantine several days before he was attacked with the disease, on the strength of a bill of health given by the surgeon in charge at the Delaware Breakwater. The Gibson left Cienfuegos, Cuba, with all well on board, but when she had been some days at sea yellow fever broke out among the crew. The master died, and was buried at sea, and the first mate, the cook and two sailors also had it, but all recovered. During the prevalence of the sickness two stow-aways were discovered, one of whom was attacked some days after landing at New York, as mentioned above. At the Delaware Breakwater the vessel was cleansed amd fumigated, and the cook was retained in hospital.

New York has lost one of her most estimable citizens by the death of Mr. David Colden Murray, which occurred at the New York Hospital last week from tumor of the bladder. Mr. Murray was formerly a well known shipping merchant, and the old Murray line of steamships running between this port and Savannah was named after him. He was a descendant of the distinguished medical Lieutenant-Governor of colonial times, Cadwalader Colden, and a son of the late Robert I. Murray, who was Secretary of the New York Hospital Association from 1824 up to the time of his death in 1858. Mr. Murray succeeded his father in this position, which he retained up to his own death; so that the secretaryship was held continuously by father and son for sixty-one years. He was made one of the Governors of the hospital in 1853, and became Treasurer of the New York Dispensary in 1856; continuing this duty until one year ago. Mr. Murray was devoted to the interests of these institutions, and was greatly beloved and respected in the community. P. B. P.

NECROLOGY.

GEORGE B. FUNDENBERG, M.D.

Dr. George B. Fundenberg, of Pittsburgh, Pa., died at Somerset, Pa., on August 15, after a protracted and painful illness.

Dr. Fundenberg was born in Lewistown, Frederick county, Md., November 17, 1815. He was the second son of Daniel Fundenberg and Rebecca Fahnstock. His grandfather was a physician, as well

as his only two brothers, the one being a well known dentist of Pittsburg.

Dr. Fundenberg's mother, in 1830, after the death of her husband, moved to Pittsburgh, where her son entered upon the study of medicine in the office of Dr. Jos. Gazzam. Subsequently he graduated at the "Pennsylvania Medical College," and began the practice of medicine with his brother-in-law, Dr. S. P. Hullihen, at Wheeling, W. Va.; a few years later he returned to Pittsburgh and soon afterwards located in Ligonier Valley, Westmoreland county. In 1849 he again returned to Wheeling, where he practiced his profession two years. In 1851 he located in Somerset, Somerset county, Pa., where he practiced for nearly ten years. In the fall of 1860 he moved to Cumberland, Md. Here he resided for twenty years, and, as in all his former years, proved himself proficient and eminently successful as a medical man. During his residence at Cumberland the Civil war broke out, and he received an appointment from Governor Curtin, of Pennsylvania, as surgeon of the One Hundred and First Pennsylvania Regiment. Subsequently he was transferred to the Twenty-Third Regiment. Soon afterwards was made Brigade-Surgeon, but on account of ill health was compelled to decline all active duty, and was placed in charge of the large Military Hospital in Cumberland, Md. For some years was president of the Alleghany County (Maryland) Medical Society. He was twice chosen President of the Board of County School Commissioners of the same county.

In April, 1881, Dr. Fundenberg moved to Pittsburgh, where he continued to practice his profession until his death. He leaves a widow and eight children, five daughters and three sons, all of the sons having chosen their father's profession. The universal testimony of all who knew him was that he was a man of eminent worth. He was a man of recognized ability in his profession, being for a score of years a frequent contributor to the medical journals of the country. His last contribution to the literature of his profession was an article on "The Treatment of Uterine Flexures by the Intra-Uterine Stem," which was read before the American Medical Association at its late annual meeting, and published in the JOURNAL of September 5.

MISCELLANEOUS.

DISINFECTION OF CANADIAN MAILS.—The Post-office Department at Washington, in view of the prevalence of small-pox in Canada, has requested the Secretary of the Treasury to have all mails from Canada to the United States thoroughly disinfected.

THE SOCIETY OF HYGIENE, of Paris, has awarded honorary diplomas to Drs. H. P. Walcott, Charles Folsom, and S. W. Abbott, of Massachusetts, for their labors in promoting public health.

DR. B. R. H. AUGER, the well-known surgeon of the Larboisière Hospital in Paris, has been visiting in New York, and has been the recipient of considerable attention here. He arrived on the *Amerique*, and will visit Japan, China, and the East Indies before returning to France.

DR. P. O. HOOPER, of Arkansas, President of the Board of Trustees of the State Lunatic Asylum, has been elected Superintendent of that institution, *vice* Dr. C. C. Forbes, who has resigned on account of ill health. The appointment is a most excellent one.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM AUGUST 29, 1885, TO SEPTEMBER 4, 1885.

Magruder, D. L., Lieutenant-Colonel and Surgeon, granted leave of absence for fifteen days. (S. O. 201, A.G.O., Sept. 3, 1885.)

Middleton, Passmore, Major and Surgeon, assigned to duty as attending surgeon at these headquarters, vice Major J. V. D. Middleton, Surgeon, hereby relieved. (S. O. 131, Dept. of the Missouri, Aug. 28, 1885.)

Cronkhite, H. M., Capt. and Assistant Surgeon, relieved from duty at Ft. Reno, Ind. Ter., and assigned to duty as post surgeon, Ft. Hays, Kansas. (S. O. 129, Dept. of the Missouri, Aug. 26, 1885.)

Girard, Alfred C., Capt. and Assistant Surgeon, assigned to duty as post surgeon at Boise Barracks, Idaho Ter. (S. O. 142, Dept. of the Columbia, Aug. 22, 1885.)

Davis, Wm. B., Capt. and Asst. Surgeon, having reported for orders from leave of absence, assigned to duty at Fort Porter, N. Y., as post surgeon. (S. O. 183, Dept. of the East, Aug. 28, 1885.)

Powell, J. S., Captain and Asst. Surgeon, relieved from temporary duty at Ft. Leavenworth, Kan., and assigned to duty as post surgeon at Ft. Lyon, Colo. (S. O. 128, Dept. of the Missouri, Aug. 25, 1885.)

Banister, Jno. M., Capt. and Asst. Surgeon, assigned to temporary duty at Camp of Competitors at Creedmoor, N. Y., arriving not later than Sept. 4, 1885. (S. O. 58, Div. of the Atlantic, Aug. 31, 1885.)

McCaw, W. D. First Lieutenant and Asst. Surgeon, assigned to temporary duty at the Camp of the Troops near Kiowa, Kan. (S. O. 128, Dept. of the Missouri, Aug. 25, 1885.)

Kendall, Wm. P., First Lieutenant and Asst. Surgeon (recently appointed), to report in person to the commanding general Dept. of California for assignment to duty. (S. O. 201, A. G. O., Sept. 3, 1885.)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING SEPTEMBER 5, 1885.

Henry Stewart, Surgeon, leave of absence extended one year from Oct. 15, with permission to remain abroad.

John M. Steele, P. A. Surgeon, detached Sept. 1 from Constellation, and report for duty at Naval Academy, Annapolis, Md.

Geo. A. Bright, Surgeon, detached Sept. 1 from Constellation, and wait orders.

S. H. Dickson, P. A. Surgeon, ordered to Naval Academy, Annapolis, Md., as relief of P. A. Surgeon A. A. Austin.

Henry B. Fitts, Asst. Surgeon, detached from coast survey steamer "Gedney," and wait orders.

A. A. Austin, P. A. Surgeon, detached from Naval Academy, Annapolis, Md., and ordered to coast survey steamer Gedney to relieve Asst. Surgeon H. B. Fitts.